## Wave operator and propagator

 $^{\beta} \mathcal{T}_{\alpha\beta} - 4 \Gamma^{\alpha\beta\chi} (a_0 \Gamma_{\beta\chi\alpha} - 2 \Delta_{\alpha\beta}$   $2 a_0 h^{\chi}_{\chi} \partial_{\beta} \Gamma^{\alpha}_{\alpha} \beta + 2 a_1$   $44 a_1 \partial^{\alpha} \Gamma^{\chi\delta}_{\delta} \partial_{\beta} \Gamma^{\chi\beta}_{\chi\alpha}$   $152 a_1 \partial^{\alpha} \Gamma^{\chi\delta}_{\chi} \partial_{\beta} \Gamma^{\delta}_{\delta\alpha}$ 

Quadratic (free) action  $S == \iiint (\frac{1}{8} (8 \, h^{\alpha \beta} \, \mathcal{T}_{\alpha \beta} - 4 \, \Gamma^{\alpha})$ 

Wave operator and propagator														
	$\Delta_0^{\#1}$	Δ <sub>0</sub> <sup>#2</sup>		$\Delta_0^{\#3}$		$\Delta_0^{\#4}$		${\cal T}_{0}^{\#1}$	$\mathcal{T}_{0}^{\#2}$	$\Delta_0^{\sharp}$	#1 ) <sup>-</sup>			
$\Delta_{0}^{\#1}$ †	$-\frac{2(a_0+25a_1k^2)}{{a_0}^2}$	$\frac{10\sqrt{6} a_1 k^2}{a_0^2}$		$-\frac{10\sqrt{\frac{2}{3}}a_1k^2}{a_0^2}$		$-\frac{20 a_1 k^2}{\sqrt{3} a_0^2}$	$-\frac{50 i \sqrt{2} a_1 k}{a_0^2}$		0	C	)		$\Delta_{2}^{\#1}{}_{\alpha\beta}$	
$\Delta_{0}^{#2}$ †	$\frac{10\sqrt{6}a_1k^2}{a_0^2}$	$-\frac{3(a_0+23a_1k^2)}{4a_0^2}$				$-\frac{a_0-23a_1k^2}{2\sqrt{2}a_0^2}$	2	$\frac{20 i \sqrt{3} a_1 k}{a_0^2}$	0	C	)	$\Delta_{2}^{#1} \dagger^{\alpha\beta}$	U	
$\Delta_{0}^{#3}$ †	$-\frac{10\sqrt{\frac{2}{3}}a_1k^2}{a_0^2}$	$\frac{5a_0 + 23a_1 k^2}{4a_0^2}$		$-\frac{9a_0+23a_1k^2}{12a_0^2}$		$-\frac{3a_0+23a_1k^2}{6\sqrt{2}a_0^2}$		$-\frac{20ia_1k}{\sqrt{3}a_0^2}$	0	C	)	$\Delta_{2}^{#2}$ † $^{lphaeta}$	$-\frac{40\sqrt{\frac{2}{3}} a_1 k^2}{a_0^2}$	
$\Delta_{0}^{\#4}$ †	2	$-\frac{a_0-23a_1}{2\sqrt{2}a_0}$	<u>k<sup>2</sup></u>	$-\frac{3 a_0 + 23 a_1 k^2}{6 \sqrt{2} a_0^2}$		$\frac{3a_0-23a_1k^2}{6a_0^2}$	2	$\frac{20i\sqrt{\frac{2}{3}}a_1k}{a_0^2}$	0	0		$\Delta_{2+}^{#3}\dagger^{\alpha\beta}$	$-\frac{80a_1k^2}{\sqrt{3}a_0^2}$	
${\cal T}_0^{\#1}\dagger$	$\frac{50 i \sqrt{2} a_1 k}{a_0^2}$	$-\frac{20i\sqrt{3}a_1k}{a_0^2}$		$\frac{20ia_1k}{\sqrt{3}a_0^2}$		$\frac{20i\sqrt{\frac{2}{3}}a_1k}{a_0^2}$	4 (	$\frac{a_0 - 25 a_1 k^2}{a_0^2 k^2}$	0	0		${\mathcal T}_{2^+}^{\sharp 1}\dagger^{lphaeta}$	$\frac{44 i \sqrt{2} a_1 k}{a_0^2}$	
${\cal T}_{0}^{\#2}\dagger$	0	0	0			0		0	0 (			$\Delta_2^{#1} \dagger^{\alpha\beta\chi}$	0	
$\Delta_{0}^{\#1}$ †	0	0	0			0		0	$0  -{a_0}$		$\frac{2}{a_1 k^2}$	$\Delta_2^{#2} \dagger^{\alpha\beta\chi}$	0	
	Γ#1 <sub>0</sub> +	$\Gamma_{0^{+}}^{#1}$ $\Gamma_{0^{+}}^{#2}$ $\Gamma_{0^{+}}^{#3}$		Γ <sub>0</sub> <sup>#3</sup>	Γ <sub>0</sub> <sup>#4</sup>					$h_{0}^{\#2}$	Γ <sub>0</sub> -1			
Γ <sub>0</sub> <sup>#1</sup> †	$\frac{1}{2}\left(-a_0+25a_1k^2\right)$ 0		10	$10 \sqrt{\frac{2}{3}} a_1 k^2$		$-\frac{10a_1k^2}{\sqrt{3}}$		$-\frac{25 i a_1 k^3}{2 \sqrt{2}}$		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	Soul	
Γ <sub>0</sub> <sup>#3</sup> †	$10\sqrt{\frac{2}{3}}a_1k$	$\frac{a_0}{2}$	-	$\frac{23 a_1 k^2}{3}$		$-\frac{3 a_0 + 46 a_1 k^2}{6 \sqrt{2}}$		$-\frac{10ia_1k^3}{\sqrt{3}}$		0	0			
Γ <sub>0</sub> <sup>#4</sup> †	,	$-\frac{a_0}{2\sqrt{2}}$	<u>-</u> 3 a	$\frac{a_0 + 46 a_1 k^2}{6 \sqrt{2}}$	$\frac{a_1 k^2}{6}$ $\frac{1}{6}$ (3 $a_0$ + 23		$k^2$ ) $5 i \sqrt{\frac{2}{3}} a_1 a_2$		$a_1 k$	3	0	0	$ \frac{SO(3)}{\mathcal{T}_{0^{+}}^{\#2}} \\ \frac{\Delta_{0^{+}}^{\#3}}{\mathcal{T}_{1^{-}}^{\#1}} \\ 2 \Delta_{1}^{\#} $	
$h_{0}^{\#1}$ †	$\frac{25 i a_1 k^3}{2 \sqrt{2}}$	0	1 1	$\frac{10 i a_1 k^3}{\sqrt{3}}$		$-5i\sqrt{\tfrac{2}{3}}a_1k^3$		$\frac{1}{4} k^2 (a_0 + 25 a_1 k^2)$		0	0	${\displaystyle rac{ ilde{ au}}{{\cal T}_{1}^{\#1}}}$		
$h_{0}^{\#2}$ †	0	0		0		0		0			0	0	2 Δ <sub>1</sub> <sup>#</sup>	
Γ <sub>0</sub> -1 †	0	0 0			0		0		0	$\frac{1}{2} \left( -a_0 + a_1 k^2 \right)$	) Tota			
	$+2a_0 \Gamma^{\alpha\beta}_{\alpha} \partial_{\beta} h_{\chi}^{\chi} - 4a_0 h_{\infty} \partial_{\beta} \Gamma^{\alpha\beta\chi} +$	$\beta_{\rm F} \chi^{\delta}_{\delta}$ - $\beta_{\rm a} h^{\chi}_{\chi}$ -	$2a_0 \Gamma^{\alpha \beta}$	$(\partial_{\beta}\partial_{\alpha}h^{\delta}{}_{\delta}\partial_{\chi}\Gamma^{\alpha\beta\chi}+$	7	${}_{{}^{\prime}{\beta}}$ - ${}^{\prime}{2}$ ${}^{\prime}{\alpha}$ ${}^{\prime}{\alpha}$ ${}^{\prime}{\alpha}$ ${}^{\prime}{\beta}$ - ${}^{\prime}{4}$ ${}^{\prime}{\alpha}$ ${}^{\prime}{\beta}$ + ${}^{\prime}{\alpha}$ ${}^{\prime}{\alpha}$ ${}^{\prime}{\beta}$ + ${}^{\prime}{\alpha}$ ${}^{\prime}{\alpha}$ ${}^{\prime}{\beta}$ +	χβ_	α Γ <sup>α</sup> β- Θ <sup>χ</sup> Γ <sup>αβ</sup> π+	$\Gamma^{lphaeta}_{lpha}$ -	$\partial^{\chi}\Gamma^{\alpha\beta}_{\ \beta}$ -	$^{\prime\prime}\partial_{\alpha}h^{\alpha\beta}+$	$\partial_{\delta}\Gamma_{\alpha\beta}^{\ \delta}$ - $\delta$ $\alpha \times +$ $\alpha \times +$ $\delta$ $\delta$ $\delta$ $\delta$	$\delta \Gamma_{\chi\beta}^{\delta}$ - $\delta \Gamma_{\chi\beta}^{\delta}$ - $\delta +$	

SO(3) irreps	Fundamental fields	Multiplicities
$\mathcal{T}_{0^{+}}^{#2} == 0$	$\partial_{\beta}\partial_{\alpha}\mathcal{T}^{\alpha\beta} == 0$	1
$\frac{\Delta_{0^{+}}^{\#3} + 2 \Delta_{0^{+}}^{\#4} + 3 \Delta_{0^{+}}^{\#2} == 0}{\Delta_{0^{+}}^{\#3} + 2 \Delta_{0^{+}}^{\#4} == 0}$	$\partial_{\alpha}\Delta^{\alpha\beta}_{\beta} == 0$	1
$\mathcal{T}_{1}^{\#1\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\mathcal{T}^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta}\mathcal{T}^{\alpha\beta}$	3
$\frac{1}{2 \Delta_{1}^{\#6\alpha} + \Delta_{1}^{\#4\alpha} + 2 \Delta_{1}^{\#5\alpha} + \Delta_{1}^{\#3\alpha} == 0}$	$\partial_{\beta}\partial^{\alpha}\Delta^{\beta\chi}_{\chi} == \partial_{\chi}\partial^{\chi}\Delta^{\alpha\beta}_{\beta}$	3
Total constraints/gauge generators	8	

 $-\frac{8(a_0+11a_1k^2)}{a_0^2k^2}$ 

 $\frac{2(3a_0+a_1k^2)}{3a_0^2}$ 

 $-\frac{2\sqrt{2} a_1 k^2}{3a_0^2}$ 

 $\frac{80 i a_1 k}{\sqrt{3} a_0^2}$ 

152  $a_1 \partial^{\alpha} \Gamma^{X_{\hat{\alpha}}} \partial_{\beta} \Gamma_{\hat{\alpha} a}^{\beta} + 2 a_0 \partial^{\beta}$   $a_0 \partial_{\beta} h^X \partial^{\beta} h^{\alpha} + 2 a_0 \partial^{\beta}$   $(2 \Gamma^X_{\hat{\beta} X} - \partial_{\beta} h^X_X + 2 \partial_{\lambda} \partial^{\beta} h^{\alpha} + 2 a_0 \partial^{\beta} h^{\alpha} \partial^{\beta} h^{\alpha}$ 

 $\mathcal{T}^{\sharp 1}_{2^+ \alpha \beta} \qquad \Delta^{\sharp 1}_{2^- \alpha \beta \chi} \ \Delta^{\sharp 2}_{2^- \alpha \beta \chi}$ 

0

0

 $8 a_{1} \partial_{\beta} \Gamma^{\alpha}_{\alpha}{}^{\beta} \partial_{\delta} \partial_{\chi} h^{\chi \delta} - 8$   $4 a_{1} \partial_{\beta} \partial_{\alpha} h^{\alpha \beta} \partial_{\delta} \partial_{\chi} h^{\chi \delta} - 8$   $74 a_{1} \partial_{\chi} \Gamma^{\alpha \beta \chi} \partial_{\delta} \partial_{\delta} h_{\alpha \beta}$   $6 a_{1} \partial_{\beta} \Gamma^{\alpha \beta \chi} \partial_{\delta} \partial^{\delta} h_{\alpha \chi} + \frac{1}{2} \frac$ 

 $6a_{1} \partial_{\beta} \Gamma^{\alpha \beta X} \partial_{\phi} \partial^{\delta} h_{\alpha X} + 2a$   $6a_{1} \partial_{\beta} \Gamma^{\alpha \beta X} \partial_{\phi} \partial^{\delta} h_{\alpha X} + 2a$   $6a_{1} \partial^{X} \Gamma^{\alpha}_{\alpha} \beta^{3} \partial_{\phi} \partial^{b} h_{\alpha X} + 2a$   $6a_{1} \partial^{X} \Gamma^{\alpha}_{\alpha} \beta^{3} \partial_{\phi} \partial^{b} h_{\alpha X} + 8a$   $73a_{1} \partial^{X} \partial_{\alpha} h^{\alpha \beta} \partial_{\phi} \partial^{b} h_{\lambda X} + 8a$   $8a_{1} \partial_{\beta} \Gamma^{\alpha}_{\alpha} \beta^{3} \partial^{\delta} \rho^{\alpha X} + 8a_{1}$   $8a_{1} \partial_{\alpha} \Gamma_{\beta \beta \beta} \partial^{\delta} \rho^{\alpha \beta X} + 8a_{1}$   $8a_{1} \partial_{\alpha} \Gamma_{\beta \beta \beta} \partial^{\delta} \rho^{\alpha \beta X} + 8a_{1}$   $8a_{1} \partial_{\alpha} \Gamma_{\beta \beta \beta} \partial^{\delta} \rho^{\alpha \beta X} + 8a_{1}$   $12a_{1} \partial_{\beta} \partial_{\alpha} h_{\chi \delta} \partial^{\delta} \Gamma^{\alpha \beta X} + 8a_{1}$   $12a_{1} \partial_{\beta} \partial_{\alpha} h_{\chi \delta} \partial^{\delta} \Gamma^{\alpha \beta X} + 8a_{1}$   $12a_{1} \partial_{\beta} \partial_{\alpha} h_{\chi \delta} \partial^{\delta} \Gamma^{\alpha \beta X} + 8a_{1}$   $12a_{1} \partial_{\beta} \partial_{\alpha} h_{\chi \delta} \partial^{\delta} \Gamma^{\alpha \beta X} + 8a_{1}$   $12a_{1} \partial_{\beta} \partial_{\alpha} h_{\chi \delta} \partial^{\delta} \Gamma^{\alpha \beta X} + 4a_{1}$   $4a_{1} \partial_{\delta} \Gamma_{\alpha \chi \beta} \partial^{\delta} \Gamma^{\alpha \beta X} + 4a_{1}$   $12a_{1} \partial_{\beta} \partial_{\beta} h_{\alpha \chi} \partial^{\delta} \Gamma^{\alpha \beta X} - 4a_{1}$   $4a_{1} \partial_{\delta} \Gamma_{\beta \chi \alpha} \partial^{\delta} \Gamma^{\alpha \beta X} + 4a_{1}$   $12a_{1} \partial_{\beta} \partial_{\beta} h_{\alpha \chi} \partial^{\delta} \Gamma^{\alpha \beta X} - 4a_{1}$   $4a_{1} \partial_{\delta} \Gamma_{\beta \chi \alpha} \partial^{\delta} \Gamma^{\alpha \beta X} + 4a_{1}$   $12a_{1} \partial_{\beta} \partial_{\beta} h_{\alpha \chi} \partial^{\delta} \Gamma^{\alpha \beta X} - 4a_{1}$   $4a_{1} \partial_{\delta} \Gamma_{\beta \chi \alpha} \partial^{\delta} \Gamma^{\alpha \beta X} - 4a_{1}$   $6a_{1} \partial_{\beta} \partial_{\alpha} h_{\chi \delta} \partial^{\delta} \partial^{\lambda} h_{\alpha \beta} \partial^{\delta} \partial^{\lambda} h_{\alpha \beta} + 1$   $6a_{1} \partial_{\delta} \partial_{\alpha} h_{\chi \delta} \partial^{\delta} \partial^{\lambda} h_{\alpha \beta} \partial^{\delta} \partial^{\lambda} h_{\alpha \beta} + 1$   $6a_{1} \partial_{\delta} \partial_{\lambda} h_{\alpha \beta} \partial^{\delta} \partial^{\lambda} h_{\alpha \beta}$ 

${\cal T}_{1^{ ext{-}}\alpha}^{\#1}$	0	0	0	0	0	0	0	0	0	0	$\Delta_3^{#1}$
$\Delta_{1^-lpha}^{\#6}$	0	0	0	0	$50 \sqrt{\frac{2}{3}} a_1 k^2$ $a_0^2 - 33 a_0 a_1 k^2$	$-\frac{a_0 - 28a_1 k^2}{6a_0^2 - 198a_0 a_1 k^2}$	$-\frac{\sqrt{5}}{6(a_0-33a_1k^2)}$	$-\frac{7(a_0+2a_1k^2)}{3\sqrt{2}a_0(a_0-33a_1k^2)}$	$\frac{5}{3(a_0-33a_1k^2)}$	0	h#1 8 1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
$\Delta_{1^-\alpha}^{\#5}$	0	0	0	0	$\frac{10 a_1 k^2 (-11 a_0 + 118 a_1 k^2)}{\sqrt{3} a_0^2 (a_0 - 33 a_1 k^2)}$	$-\frac{a_0^2 - 118 a_0 a_1 k^2 + 2560 a_1^2 k^4}{6 \sqrt{2} a_0^2 (a_0 - 33 a_1 k^2)}$	$-\frac{\sqrt{\frac{5}{2}} (a_0-82 a_1 k^2)}{6 a_0 (a_0-33 a_1 k^2)}$	$\frac{17a_0^2 - 236a_0a_1k^2 + 1280a_1^2k^4}{6a_0^2(a_0 - 33a_1k^2)}$	$-\frac{7(a_0+2a_1 k^2)}{3 \sqrt{2} a_0 (a_0-33a_1 k^2)}$	0	9#1
$\Delta_{1^-}^{\#4}\alpha$	0	0	0	0	$-\frac{5\sqrt{\frac{10}{3}}a_1k^2}{a_0^2-33a_0a_1k^2}$	$\frac{\sqrt{5} (5 a_0 - 164 a_1 k^2)}{12 a_0 (a_0 - 33 a_1 k^2)}$	$\frac{1}{12 a_0 - 396 a_1 k^2}$	$-\frac{\sqrt{\frac{5}{2}} (a_0-82a_1k^2)}{6a_0 (a_0-33a_1k^2)}$	$-\frac{\sqrt{5}}{6(a_0-33a_1k^2)}$	0	L#5
$\Delta_{1^{-}\alpha}^{\#3}$	0	0	0	0	$\frac{5\sqrt{\frac{2}{3}}a_1k^2(7a_0-236a_1k^2)}{a_0^2(a_0-33a_1k^2)}$	$\frac{-19a_0^2 + 472a_0a_1k^2 + 5120a_1^2k^4}{12a_0^2(a_0 - 33a_1k^2)}$	$\sqrt{5} (5a_0 - 164a_1 k^2)$ $12a_0 (a_0 - 33a_1 k^2)$	$-\frac{a_0^2 - 118 a_0 a_1 k^2 + 2560 a_1^2 k^4}{6 \sqrt{2} a_0^2 (a_0 - 33 a_1 k^2)}$	$-\frac{a_0-28a_1k^2}{6a_0^{2}-198a_0a_1k^2}$	0	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
$\Delta_{1^-}^{\#2}{}_{\alpha}$	0	0	0	$\frac{2\sqrt{2}}{a_0}$	$\frac{2(a_0^2 - 30 a_0 a_1 k^2 + 401 a_1^2 k^4)}{a_0^2 (a_0 - 33 a_1 k^2)}$	$\frac{5\sqrt{\frac{2}{3}}a_1k^2(7a_0-236a_1k^2)}{a_0^2(a_0-33a_1k^2)}$	$-\frac{5\sqrt{\frac{10}{3}}a_1k^2}{a_0^{2-33}a_0a_1k^2}$	$\frac{10a_1 k^2 (-11a_0 + 118a_1 k^2)}{\sqrt{3} a_0^2 (a_0 - 33a_1 k^2)}$	$50 \sqrt{\frac{2}{3}} a_1 k^2$ $a_0^2 - 33 a_0 a_1 k^2$	0	Γ#2 Γ#3
$\Delta_{1^{-}\alpha}^{\#1}$	0	0	0	0	$\frac{2\sqrt{2}}{a_0}$	0	0	0	0	0	$\Gamma_1^{\#1}$
$\Delta_{1}^{\#3}_{\alpha\beta}$	0	$\frac{40\sqrt{2}a_1k^2}{a_0^2-29a_0a_1k^2}$	$\frac{4}{a_0-29a_1k^2}$	0	0	0	0	0	0	0	Γ#3 1+α8
$\Delta_{1}^{\#2}_{+}\alpha_{\beta}$	$-\frac{2\sqrt{2}}{a_0}$	$\frac{2 \left(a_0^2 - 14 a_0 a_1 k^2 - 35 a_1^2 k^4\right)}{a_0^2 \left(a_0 - 29 a_1 k^2\right)}$	$\frac{40\sqrt{2} a_1 k^2}{a_0^2 - 29 a_0 a_1 k^2}$	0	0	0	0	0	0	0	Γ#1
$\Delta_{1}^{\#1}_{+}\alpha_{\beta}$	0	$\frac{2\sqrt{2}}{a_0}$	0	0	0	0	0	0	0	0	#
	$\Delta_1^{\#1} + \alpha \beta$	$\Delta_1^{\#_2} + \alpha \beta$	$\Delta_{1}^{\#3} + ^{\alpha eta}$	$\Delta_{1}^{\#_{1}} +^{\alpha}$	$\Delta_{1}^{\#2} +^{lpha}$	$\Delta_{1}^{\#3} +^{lpha}$	$\Delta_{1^{\bar{-}}}^{\#4} +^{\alpha}$	$\Delta_{1}^{\#5} +^{\alpha}$	$\Delta_{1}^{\#6} +^{\alpha}$	${\mathcal T}_{1}^{\#1}\dagger^{lpha}$	

0	Γ <sub>3</sub> -1 †	αβχ <u>1</u>		<sup>±1</sup> αβχ - <b>7</b> a <sub>1</sub>								
	$h_{1}^{\#1}$	0	0	0	0	0	0	0	0	0	0	
0	$\lceil r_1^{\#6} _\alpha$	0	0	0	$-\frac{5a_1k^2}{\sqrt{3}}$	0	$\frac{1}{6} (-a_0 + 20 a_1 k^2)$	$-\frac{1}{6}\sqrt{5}(a_0-5a_1k^2)$	$\frac{a_0+40a_1k^2}{6\sqrt{2}}$	$\frac{5}{12} (a_0 - 17 a_1 k^2)$	0	
0	$\Gamma_1^{\#5}$	0	0	0	$5\sqrt{\frac{3}{2}}a_1k^2$	0	$-\frac{a_0}{6\sqrt{2}}$	$-\frac{1}{6} \sqrt{\frac{5}{2}} (a_0 + 16a_1 k^2) \left  -\frac{1}{6} \sqrt{5} (a_0 - 5a_1 k^2) \right $	٤ <u>0</u>	$\frac{a_0 + 40a_1 k^2}{6 \sqrt{2}}$	0	
0	$\Gamma_{1}^{\#4}{}_{\alpha}$	0	0	0	$-\frac{5}{2}\sqrt{\frac{5}{3}}a_1k^2$	0	$\frac{1}{6} \sqrt{5} (a_0 - 8 a_1 k^2)$	$\frac{1}{3}(a_0 + 7a_1k^2)$	$-\frac{1}{6} \sqrt{\frac{5}{2}} \left( a_0 + 16 a_1 k^2 \right)$	$-\frac{1}{6}\sqrt{5}(a_0-5a_1k^2)$	0	C#-I
0	$\lceil r_1^{\#3} \rceil_{\alpha}$	0	0	0	$\frac{5}{2}\sqrt{3}a_1k^2$	0	- <u>a0</u>	$\frac{1}{6}\sqrt{5}(a_0-8a_1k^2)$	$-\frac{a_0}{6\sqrt{2}}$	$\frac{1}{6} \left( -a_0 + 20  a_1  k^2 \right)$	0	[# <b>-</b>
	$\Gamma_{1}^{\#2}$	0	0	0	$\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0	0	1,#1
0	$\lceil \Gamma_1^{\#1} \rceil_{\alpha}$	0	0	0	$\frac{1}{4} (-a_0 - 3 a_1 k^2)$	$\frac{a_0}{2\sqrt{2}}$	$\frac{5}{2} \sqrt{3} a_1 k^2$	$-\frac{5}{2}\sqrt{\frac{5}{3}}a_1k^2$	$5\sqrt{\frac{3}{2}}a_1k^2$	$-\frac{5a_1k^2}{\sqrt{3}}$	0	1#3
0	lphaeta	$k^2$		$9a_1k^2$ )								Ï
	$\Gamma_{1}^{\#3}$	$5a_1k^2$	0	$\frac{1}{4} (a_0 - 29 a_1 k^2)$	0	0	0	0	0	0	0	7
0	$\Gamma_{1}^{\#2}$	$-\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0	0	0	0	0	C#L
0	$\Gamma_{1}^{\#1}_{\alpha\beta}$	$\frac{1}{4} \left( -a_0 - 15  a_1  k^2 \right)$	$-\frac{a_0}{2\sqrt{2}}$	5 a <sub>1</sub> k <sup>2</sup>	0	0	0	0	0	0	0	_ ##
${\mathcal T}_{1^{\bar{-}}}^{\#1} +^{\alpha}$		$\Gamma_1^{#1} + \alpha \beta$	$\Gamma_1^{\#2} + \alpha \beta$	$\Gamma_1^{\#3} + \alpha \beta$	$\Gamma_{1}^{\#1} +^{lpha}$	$\Gamma_1^{\#2} + \alpha$	$\Gamma_1^{\#3} + ^{\alpha}$	$\Gamma_1^{\#4} + ^{\alpha}$	$\Gamma_1^{\#5} +^{\alpha}$	$\Gamma_1^{\#6} +^{\alpha}$	$h_1^{#1} + ^{\alpha}$	

0  $\Gamma_{2}^{\#_{1}^{1}} \alpha \beta$   $\frac{1}{4} (a_{0} + 11 a_{1} k^{2})$ 

0 0 0  $-5 \sqrt{\frac{2}{3}} a_1 k^2$   $-\frac{1}{6} (-3 a_0 + a_1 k^2)$   $-\frac{a_1 k^2}{6 \sqrt{2}}$   $-\frac{5 i a_1 k^3}{\sqrt{3}}$  0 $-5 \sqrt{\frac{2}{3}} a_1 k^2$   $\frac{5a_1 k^2}{\sqrt{3}}$   $\frac{11 i a_1 k^3}{4 \sqrt{2}}$ 0  $h_{2}^{#1} + \alpha \beta$   $\Gamma_{2}^{#1} + \alpha \beta \chi$   $\Gamma_{2}^{#2} + \alpha \beta \chi$  $\Gamma_2^{#1} +^{\alpha\beta}$  $\Gamma_2^{#2} + \alpha \beta$  $\Gamma_2^{\#3} + \alpha \beta$