$ au_1^{\#2}$	0	0	0	$-\frac{4ik}{(\alpha_0-4\beta_1)(1+2k^2)}$	$-\frac{2i\sqrt{2}k}{(\alpha_0-4\beta_1)(1+2k^2)^2}$	0	$-\frac{4 k^2}{(\alpha_0 - 4 \beta_1) (1 + 2 k^2)^2}$
$\tau_{1}^{\#1}{}_{\alpha}$	0	0	0	0	0	0	0
$\sigma_{1^{-}\alpha}^{\#2}$	0	0	0	$-\frac{2\sqrt{2}}{(\alpha_0-4\beta_1)(1+2k^2)}$	$-\frac{2}{(\alpha_0-4\beta_1)(1+2k^2)^2}$	0	$\frac{2 i \sqrt{2} k}{(\alpha_0 - 4 \beta_1) (1 + 2 k^2)^2}$
$\sigma_{1^{-}\alpha}^{\#1}$	0	0	0	0	$-\frac{2\sqrt{2}}{(\alpha_0-4\beta_1)(1+2k^2)}$	0	$\frac{4ik}{(\alpha_0-4\beta_1)(1+2k^2)}$
$\tau_{1}^{\#1}{}_{\alpha\beta}$	$\frac{2i\sqrt{2}k}{(\alpha_0-4\beta_1)(1+k^2)}$	$-\frac{2ik}{(\alpha_0-4\beta_1)(1+k^2)^2}$	$-\frac{2 k^2}{(\alpha_0 - 4 \beta_1)(1 + k^2)^2}$	0	0	0	0
$\sigma_{1}^{\#2}_{+}$	$\frac{2\sqrt{2}}{(\alpha_0-4\beta_1)(1+k^2)}$	$-\frac{2}{(\alpha_0-4\beta_1)(1+k^2)^2}$	-	0	0	0	0
$\sigma_{1}^{\#1}{}_{\alpha\beta}$	$\sigma_{1}^{\#1} + ^{\alpha \beta}$ 0	$\sigma_{1+}^{\#2} + \alpha \beta \frac{2\sqrt{2}}{(\alpha_0 - 4\beta_1)(1 + \kappa^2)}$	$ \tau_{1+}^{\#1} + \alpha \beta - \frac{2 i \sqrt{2} k}{(\alpha_{0} - 4 \beta_{1})(1 + k^{2})} $	$\sigma_1^{*1} + \alpha = 0$	$\sigma_1^{#2} +^{\alpha}$ 0	0	$t_1^{\#2} + \alpha$ 0
	00					$\tau_{1}^{\#_{1}} +^{\alpha}$	

	_	$\omega_{2}^{\#1}$	αβ	$f_{2^{+}a}^{#1}$	ιβ	ω	#1 2 ⁻ αβ;	<u> </u>
$\omega_{2}^{\#1}$	$\frac{1}{4} + \alpha \beta \left[-\frac{\alpha_0}{4} + \beta_1 \right]$		$\frac{i(\alpha_0-4\beta_1)k}{2\sqrt{2}}$		0			
$f_{2}^{#1}$	† ^{αβ}	$-\frac{i(\alpha_0-4)}{2}$		$2 \beta_1 k^2$		0		
υ <mark>#1</mark> .	$\dagger^{\alpha\beta\chi}$	0		0		$-\frac{\alpha_0}{4}+\beta$		} ₁
$f_{1^-}^{\#2}$	0	0	0	α_0 - 4 β_1) k	c)	0	C

	$\sigma_{2^{+}lphaeta}^{\#1}$	$\tau_{2}^{\#1}_{\alpha\beta}$	$\sigma_{2}^{\#1}{}_{\alpha\beta\chi}$
$\sigma_{2^{+}}^{\sharp 1}\dagger^{\alpha\beta}$	$-\frac{16\beta_1}{\alpha_0^2-4\alpha_0\beta_1}$	$\frac{2i\sqrt{2}}{\alpha_0 k}$	0
$\tau_{2}^{\#1} \dagger^{\alpha\beta}$	$-\frac{2i\sqrt{2}}{\alpha_0 k}$	$\frac{2}{\alpha_0 k^2}$	0
$\sigma_2^{\sharp 1} \dagger^{lphaeta\chi}$	0	0	$\frac{1}{-\frac{\alpha_0}{4} + \beta_1}$
·			

Source constraints

$f_{1}^{\#2}$	0	0	0	$-\frac{1}{2}\overline{i}(\alpha_0-4\beta_1)k$	0	0	0
$f_{1}^{\#1}\alpha$	0	0	0	0	0	0	0
$\omega_{1^{-}}^{\#2} \alpha f_{1^{-}}^{\#1} \alpha$	0	0	0	$-\frac{\alpha_0-4\beta_1}{2\sqrt{2}}$	0	0	0
$\omega_{1}^{\#_{1}}{}_{\alpha}$	0	0	0	$\frac{1}{4} \left(\alpha_0 - 4 \beta_1 \right)$	$-\frac{\alpha_0-4\beta_1}{2\sqrt{2}}$	0	$\frac{1}{2}$ \vec{i} (α_0 - 4 β_1) k
$\omega_1^{*\sharp}$ α_{β} α_{β}	$\frac{i(\alpha_0-4\beta_1)k}{2\sqrt{2}}$	0	0	0	0	0	0
$^{+}\alpha\beta$	$\frac{4\beta_1}{\sqrt{2}}$)					
ω_1^*	$\frac{\alpha_0}{2}$)	0	0	0	0	0
$\omega_1^{\#rac{1}{4}}{}_{lphaeta} \qquad \omega_1^{\#}$	$u_1^{\#1} + \alpha \beta \left[\frac{1}{4} \left(\alpha_0 - 4 \beta_1 \right) \left \frac{\alpha_0 - 4 \beta_1}{2 \sqrt{2}} \right \right]$	$u_1^{\#2} + \alpha \beta$ $\frac{\alpha_0 - 4 \beta_1}{2 \sqrt{2}}$ ($f_1^{\#1} + \alpha \beta \left[-\frac{i(\alpha_0 - 4\beta_1)k}{2\sqrt{2}} \right] 0$	$\omega_{1}^{\#1} + \alpha = 0$ 0 0	$\omega_{1}^{\#2} + \alpha$ 0 0	0 0	$f_1^{\#^2} +^{\alpha}$ 0 0

30u	ice co	onstra	imis			
SO(3) irre	eps			#	
$\tau_{0+}^{\#2} == 0$						
τ#20	$\tau_{1}^{\#2\alpha} + 2 i k \sigma_{1}^{\#2\alpha} == 0$					
$\tau_1^{\#1}$	^α == 0				3	
$\tau_{1}^{\#1}$	$\alpha^{\beta} + i$	$k \sigma_{1}^{#2}$	αβ ==	0	3	
Tota	al #:				10	
$\omega_{0^{\text{-}}}^{\#1}$	0	0	0	1 81	(d0 - + \rho_1)	
				1 (2	
$f_{0}^{\#2}$	0	0	0	O	>	
$f_{0}^{\#1}$	$-\frac{i(\alpha_0-4\beta_1)k}{\sqrt{2}}$	$-4 \beta_1 k^2$	0	C	O	
$\omega_{0}^{\#1}$	$2\beta_1 + \alpha_6 k^2$	$i(\alpha_0-4\beta_1)k$ $\sqrt{2}$	0	c	D	

 $\omega_{0}^{#1} + f_{0}^{#1} + f_{0}^{#1} + f_{0}^{#2} + f_{0}^{#2} + \omega_{0}^{#1} + f_{0}^{#1} + f_{$

	$\sigma_{0^+}^{\sharp 1}$	$ au_{0^{+}}^{#1}$	$ au_{0}^{\#2}$	$\sigma_0^{\#1}$
$\sigma_{0^{+}}^{\#1}$ †	$\frac{8\beta_1}{\alpha_0^2 - 4\alpha_0\beta_1 + 8\alpha_6\beta_1k^2}$	$-\frac{i\sqrt{2} (\alpha_0-4\beta_1)}{\alpha_0 (\alpha_0-4\beta_1)k+8\alpha_6\beta_1 k^3}$	0	0
$\tau_{0}^{\#1}$ †	$\frac{i \sqrt{2} (\alpha_0 - 4 \beta_1)}{\alpha_0 (\alpha_0 - 4 \beta_1) k + 8 \alpha_6 \beta_1 k^3}$	$-\frac{\alpha_0 - 4 \beta_1 + 2 \alpha_6 k^2}{k^2 (\alpha_0^2 - 4 \alpha_0 \beta_1 + 8 \alpha_6 \beta_1 k^2)}$	0	0
$\tau_{0^{+}}^{\#2} \dagger$	0	0	0	0
$\sigma_0^{\sharp 1}$ †	0	0	0	$\frac{2}{\alpha_0 - 4 \beta_1}$

Lagrangian density	$-rac{1}{2}lpha_0\omega_{lpha\chieta}\omega^{lphaeta\chirac{1}{2}}lpha_0\omega^{lphaeta}_{lpha}\omega^{\chi}_{eta} + 2eta_1\omega^{lphaeta}_{lpha}\omega^{\chi}_{eta}^{-}$	$2\beta_1 \omega_{\alpha}^{\chi\delta} \omega_{\chi\delta}^{\alpha} - 2\beta_1 \omega_{\chi}^{\chi} \partial_{\beta} f^{\alpha\beta} - 2\beta_1 \omega_{\alpha}^{\delta} \partial_{\beta} f^{\alpha\beta} -$	$\alpha_0 \ f^{\alpha\beta} \ \partial_\beta \omega_{\alpha \ X}^{\ X} + \alpha_0 \ \partial_\beta \omega^{\alpha\beta}_{\alpha} + 2 \ \beta_1 \ \omega_{\beta \ X}^{\ X} \ \partial^\beta f^{\alpha}_{\alpha} + 2 \ \beta_1 \ \omega_{\beta \ \delta}^{\ \delta} \ \partial^\beta f^{\alpha}_{\alpha} -$	$2\beta_1 \partial_{\beta} f_{\chi}^{X} \partial^{\beta} f_{\alpha}^{\alpha} + \alpha_0 f^{\alpha\beta} \partial_{\chi} \omega_{\alpha\beta}^{X} - \alpha_0 f^{\alpha} \partial_{\chi} \omega^{\beta\chi}_{\beta} +$	$4\beta_1\omega_{\alpha\chi\beta}\partial^\chi f^{\alpha\beta} + \beta_1\partial_\chi f_{\beta}^{\delta}\partial^\chi f_{\delta}^{\beta} + \beta_1\partial_\chi f^{\delta}_{\beta}\partial^\chi f_{\delta}^{\beta} +$	$4\beta_1\partial^\beta f^\alpha_{\ \alpha}\partial_\delta f_\beta^{\ \delta} - 2\beta_1\partial_\beta f_\lambda^{\ \beta}\partial_\delta f^{\chi\delta} + \tfrac{2}{3}\alpha_6\partial_\beta \omega^{\alpha\beta}_{\ \alpha}\partial_\delta \omega^{\chi\delta}_{\ \chi} -$	$\beta_1 \partial^\chi f_{\zeta}^{\ \beta} \partial^\zeta f_{\beta\chi} - \beta_1 \partial^\chi f_{\zeta}^{\ \beta} \partial^\zeta f_{\chi\beta} + \beta_1 \partial^\chi f_{\delta\zeta} \partial^\zeta f^{\delta}_{\ \chi} - \beta_1 \partial^\chi f_{\zeta\delta} \partial^\zeta f^{\delta}_{\ \chi}$
$-\frac{1}{2}\alpha_{0}\omega_{\alpha\chi\beta}\omega^{\alpha\beta\chi} - \frac{1}{2}\alpha_{0}\omega^{\alpha\beta}\omega^{\chi} + 2\beta_{1}\omega^{\alpha\beta}\omega^{\chi} - 2\beta_{1}\omega^{\chi} - 2\beta_{1}\omega^{\chi} + 2\beta_{1}\omega^{\alpha}\omega^{\chi} - 2\beta_{1}\omega^{\chi} - 2\beta_$	$2\beta_{1} \omega_{\alpha}^{X\delta} \omega_{\chi\delta}^{\alpha} - 2\beta_{1} \omega_{\alpha}^{X} \beta_{\beta} f^{\alpha\beta} - 2\beta_{1} \omega_{\alpha}^{\delta} \delta_{\beta} f^{\alpha\beta} -$ $\alpha_{0} f^{\alpha\beta} \partial_{\beta} \omega_{\alpha}^{X} + \alpha_{0} \partial_{\beta} \omega^{\alpha\beta}_{\alpha} + 2\beta_{1} \omega_{\beta}^{X} \partial^{\beta} f^{\alpha}_{\alpha} + 2\beta_{1} \omega_{\beta}^{\delta} \delta_{\delta} \partial^{\beta} f^{\alpha}_{\alpha} -$ $2\beta_{1} \partial_{\beta} f^{X}_{X} \partial^{\beta} f^{\alpha}_{\alpha} + \alpha_{0} f^{\alpha\beta} \partial_{X} \omega_{\alpha}^{X} - \alpha_{0} f^{\alpha}_{\alpha} \partial_{X} \omega^{\beta}_{\beta} +$ $4\beta_{1} \omega_{\alpha\chi\beta} \partial^{\chi} f^{\alpha\beta} + \beta_{1} \partial_{\chi} f^{\beta}_{\beta} \partial^{\chi} f^{\beta}_{\delta} + \beta_{1} \partial_{\chi} f^{\delta}_{\beta} \partial^{\chi} f^{\beta}_{\delta} +$ $4\beta_{1} \partial^{\beta} f^{\alpha}_{\alpha} \partial_{\delta} f^{\beta}_{\beta} - 2\beta_{1} \partial_{\beta} f^{\beta}_{X} \partial^{\delta} f^{X\delta} + \frac{2}{3} \alpha_{6} \partial_{\beta} \omega^{\alpha\beta}_{\alpha} \partial^{\delta} \omega^{X\delta}_{\lambda} -$ $\beta_{1} \partial^{\chi} f^{\beta}_{\beta} \partial^{\zeta} f_{\beta\chi} - \beta_{1} \partial^{\chi} f^{\beta}_{\zeta} \partial^{\zeta} f^{\delta}_{\chi\beta} + \beta_{1} \partial^{\chi} f_{\delta\zeta} \partial^{\zeta} f^{\delta}_{\chi} - \beta_{1} \partial^{\chi} f_{\zeta\delta} \partial^{\zeta} f^{\delta}_{\chi}$	$a_0 f^{\alpha\beta} \partial_{\beta} \omega_{\alpha}^{\ X} + a_0 \partial_{\beta} \omega^{\alpha\beta} + 2 \beta_1 \omega_{\beta}^{\ X} \partial^{\beta} f^{\alpha}_{\ \alpha} + 2 \beta_1 \omega_{\beta}^{\ \delta} \partial^{\beta} f^{\alpha}_{\ \alpha} - 2 \beta_1 \partial_{\beta} f^{\alpha}_{\ \alpha} + 2 \beta_1 \omega_{\beta}^{\ \delta} \partial^{\beta} f^{\alpha}_{\ \alpha} - 2 \beta_1 \partial_{\beta} f^{\alpha}_{\ \alpha} + a_0 f^{\alpha\beta} \partial_{\chi} \omega_{\alpha}^{\ X} - a_0 f^{\alpha}_{\ \alpha} \partial_{\chi} \omega^{\beta\chi} + 4 \beta_1 \omega_{\chi\beta} \partial^{\chi} f^{\beta}_{\ \alpha} + \beta_1 \partial_{\chi} f^{\beta}_{\ \beta} \partial^{\chi} f^{\beta}_{\ \beta} + \beta_1 \partial_{\chi} f^{\beta}_{\ \beta} \partial^{\chi} f^{\beta}_{\ \beta} + \beta_1 \partial_{\chi} f^{\beta}_{\ \beta} \partial^{\chi} f^{\beta}_{\ \beta} + \beta_1 \partial^{\chi} f^{\beta}_{\ \beta} \partial^{\chi} f^{\beta}_{\ \beta} + \beta_1 \partial^{\chi} f^{\beta}_{\ \beta} \partial^{\chi} f^{\beta}_{\ \beta} + \beta_1 \partial^{\chi} f^{\beta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\beta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\beta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\beta}_{\ \lambda} + \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\zeta}_{\ \lambda} - \beta_1 \partial^{\chi} f^{\zeta}_{\ \delta} \partial^{\zeta} f^{\zeta}_{\ \delta} \partial^{\zeta}_{\ \delta} \partial$	$2 \beta_{1} \partial_{\beta} f_{\chi}^{X} \partial^{\beta} f_{\alpha}^{\alpha} + \alpha_{0} f^{\alpha \beta} \partial_{\chi} \omega_{\chi}^{X}{}_{\beta} - \alpha_{0} f^{\alpha}{}_{\alpha} \partial_{\chi} \omega^{\beta \chi}{}_{\beta} +$ $4 \beta_{1} \omega_{\alpha \chi \beta} \partial^{\chi} f^{\alpha \beta} + \beta_{1} \partial_{\chi} f_{\beta}^{\delta} \partial^{\chi} f_{\delta}^{\beta} + \beta_{1} \partial_{\chi} f^{\delta}{}_{\beta} \partial^{\chi} f_{\delta}^{\beta} +$ $4 \beta_{1} \partial^{\beta} f_{\alpha}^{\alpha} \partial_{\delta} f_{\beta}^{\delta} - 2 \beta_{1} \partial_{\beta} f_{\chi}^{\beta} \partial_{\delta} f^{\chi \delta} + \frac{2}{3} \alpha_{6} \partial_{\beta} \omega^{\alpha \beta}{}_{\alpha} \partial_{\delta} \omega^{\chi \delta}{}_{\chi} -$ $\beta_{1} \partial^{\chi} f_{\zeta}^{\beta} \partial^{\zeta} f_{\beta \chi} - \beta_{1} \partial^{\chi} f_{\zeta}^{\beta} \partial^{\zeta} f_{\chi \beta} + \beta_{1} \partial^{\chi} f_{\delta \zeta} \partial^{\zeta} f^{\delta}{}_{\chi} - \beta_{1} \partial^{\chi} f_{\zeta \delta} \partial^{\zeta} f^{\delta}{}_{\chi}$	$4 \beta_{1} \omega_{\alpha\chi\beta} \partial^{\chi} f^{\alpha\beta} + \beta_{1} \partial_{\chi} f_{\beta}^{\delta} \partial^{\chi} f_{\delta}^{\beta} + \beta_{1} \partial_{\chi} f^{\delta}_{\beta} \partial^{\chi} f_{\beta}^{\beta} +$ $4 \beta_{1} \partial^{\beta} f^{\alpha}_{\alpha} \partial_{\delta} f_{\beta}^{\delta} - 2 \beta_{1} \partial_{\beta} f_{\chi}^{\beta} \partial_{\delta} f^{\chi\delta} + \frac{2}{3} \alpha_{6} \partial_{\beta} \omega^{\alpha\beta}_{\alpha} \partial_{\delta} \omega^{\chi\delta}_{\chi} -$ $\beta_{1} \partial^{\chi} f_{\zeta}^{\beta} \partial^{\zeta} f_{\beta\chi} - \beta_{1} \partial^{\chi} f_{\zeta}^{\beta} \partial^{\zeta} f_{\chi\beta} + \beta_{1} \partial^{\chi} f_{\delta\zeta} \partial^{\zeta} f^{\delta}_{\chi} - \beta_{1} \partial^{\chi} f_{\zeta\delta} \partial^{\zeta} f^{\delta}_{\chi}$	$4 \beta_1 \partial^{\beta} f^{\alpha}_{\ \alpha} \partial_{\delta} f_{\beta}^{\ \delta} - 2 \beta_1 \partial_{\beta} f_{X}^{\ \beta} \partial_{\delta} f^{X\delta} + \frac{2}{3} \alpha_6 \partial_{\beta} \omega^{\alpha\beta}_{\ \alpha} \partial_{\delta} \omega^{X\delta}_{\ X} -$ $\beta_1 \partial^{X} f_{\zeta}^{\ \beta} \partial^{\zeta} f_{\beta X} - \beta_1 \partial^{X} f_{\zeta}^{\ \beta} \partial^{\zeta} f_{X\beta} + \beta_1 \partial^{X} f_{\delta\zeta} \partial^{\zeta} f^{\delta}_{\ X} - \beta_1 \partial^{X} f_{\zeta\delta} \partial^{\zeta} f^{\delta}_{\ X}$	$\beta_1 \partial^\chi f_{\zeta}^{\ \beta} \partial^\zeta f_{\beta\chi} - \beta_1 \partial^\chi f_{\zeta}^{\ \beta} \partial^\zeta f_{\chi\beta} + \beta_1 \partial^\chi f_{\delta\zeta} \partial^\zeta f^\delta_{\ \chi} - \beta_1 \partial^\chi f_{\zeta\delta} \partial^\zeta f^\delta_{\ \chi}$	