	ı	۳ '	, & +	+							
	$(\partial_{\beta}f^{\alpha\beta})^{\alpha\beta}$		$\partial_{x}\omega^{px}$	$\lambda_{\zeta\alpha\beta}^{+}$	-χ <sub>β</sub>			$f_{1}^{\#2}$	0	0	0
	$\omega_{\alpha}^{X}$	$\omega_{\beta}^{2}$	$\omega_{\alpha\chi\beta}^{2}$	$\zeta \alpha \partial^{\chi} \alpha$	$\int_{\zeta}^{\beta} \frac{\partial \zeta}{\partial \zeta} d\zeta$	$\frac{1}{\chi_{g}}$		$f_{1^{}}^{\#1}{}_{\alpha}$	0	0	0
	$(-2\beta_1^2 + 4\beta_1$	$+2\beta_1$	$_{\beta}$ - 4 $\beta_{1}$	$\frac{2}{3} \partial_{\chi} \omega^{\beta}$ $-2 \beta_1^2$	$8_1^2 \partial^x f$	$\iota^{eta\chi}$ $\sigma_{lpha_{l}}$		$\omega_{1^{-}\alpha}^{\#2}$	0	0	0
	$^{5}\omega_{\chi\delta}^{\alpha}$	$\partial^{\beta} f^{\alpha}_{\alpha}$	$\frac{\partial_{\chi}\omega_{\alpha}^{\chi}}{\omega^{\zeta\alpha\beta}}$	$f_{\delta}^{\beta} + \frac{2}{3}$	$\omega_{\zeta\beta}^{\alpha}$ -/ $\chi$ - $\beta_1$ - $\chi$ - $\beta_1$ - $\chi$ - $\beta_2$ - $\chi$ - $\beta_1$ - $\chi$ - $\beta_2$ - $\chi$ - $\beta_1$ - $\chi$ - $\beta_2$ - $\chi$ - $\beta_1$ - $\chi$ - $\chi$ - $\beta_2$ - $\chi$	$_{\beta}+\omega^{\circ}$		$\omega_{1^{-}}^{\#1}{}_{\alpha}$	0	0	0
	$\int_{2}^{2}\omega_{\alpha}^{X^{c}}$	$^{2}\omega_{\beta\chi}^{X}$	$\int_{\zeta^{\alpha}}^{\chi} f^{\alpha p}$	$\chi f^{\delta}_{\beta} \partial^{\chi}_{\beta}$	$ u_{\alpha}^{\zeta\delta}\partial_{\delta}u$ $ \langle f_{\delta\zeta}\partial^{\zeta}f $	$f^{\alpha\beta}$		$f_{1}^{\#1}{}_{\alpha\beta}$	0	0	0
nsity	$\beta x - 2 \beta$ $x\beta - 4 \beta_1$	$^{\chi}$ + 2 $\beta_1$	$\alpha + 4\beta$ $\alpha - \frac{1}{3} \partial_{\beta} c$	$+\beta_1^2\partial$ $+4\beta_1$	$x - \frac{2}{3} \partial^{\beta} c$ + $\beta_1^2 \partial^{\beta}$	term:		$\omega_1^{\#2}$	0	0	0
jian de	$\int_{\alpha\chieta}\omega^{lpha}$	$\chi^{\partial eta} \omega_{\zeta \alpha}^{\lambda}$	$\int_{X}^{CX} \partial^{\beta} f^{a}$	$\delta_{\partial X} f_{\delta}^{\beta}$ $\delta_{\partial X} \omega_{\zeta \alpha \mu}$	$\zeta_{\partial_{\delta}\omega_{\zeta\beta}}^{\delta}$	source		$\omega_{1}^{\#1} \alpha_{1}^{\#2} \omega_{1}^{\#2} f_{1}^{\#1} \alpha_{1}^{\#1} \alpha_{1}^{\#1} \alpha_{1}^{\#2} f_{1}^{\#1} \alpha_{1}^{\#2}$	0	0	0
Lagrangian density	$-2\beta_1^2 \omega_{\alpha\chi\beta} \omega^{\alpha\beta\chi} - 2\beta_1^2 \omega_{\chi}^{\chi\delta} \omega_{\chi\delta}^{\alpha} - 2\beta_1^2 \omega_{\chi}^{\chi} \partial_{\beta}f^{\alpha\beta} - 2\beta_1^2 \omega_{\chi}^{\chi} \partial_{\beta}f^{\alpha\beta} - 2\beta_1^2 \omega_{\chi}^{\alpha} \partial_{\beta}f^{\alpha\beta} \partial_{\beta}f^{\alpha\beta} - 2\beta_1^2 \omega_{\chi}^{\alpha} \partial_{\beta}f^{\alpha\beta} \partial_{\beta}f^{\alpha$	$\frac{2}{3} \partial^{\alpha} \omega^{\beta \zeta} \partial_{\beta} \omega_{\zeta \alpha}^{\chi} + 2 \beta_{1}^{2} \omega^{\chi}_{\beta \chi} \partial^{\beta} f^{\alpha}_{\alpha} + 2 \beta_{1}^{2} \omega^{\delta}_{\beta \delta} \partial^{\beta} f^{\alpha}_{\alpha} -$	$2\beta_{1}^{2}\partial_{\beta}f_{\chi}^{X}\partial^{\beta}f_{\alpha}^{\alpha} + 4\beta_{1}^{2}f^{\alpha\beta}\partial_{\chi}\omega_{\alpha}^{X}\beta_{-4}\beta_{1}^{2}f_{\alpha}^{\alpha}\partial_{\chi}\omega^{\beta\chi}_{\beta}$ $\frac{2}{3}\partial_{\beta}\omega_{\zeta\alpha}^{X}\partial_{\chi}\omega^{\beta\zeta\alpha} - \frac{1}{3}\partial_{\beta}\omega_{\zeta\alpha}^{X}\partial_{\chi}\omega^{\zeta\alpha\beta} + 4\beta_{1}^{2}\omega_{\alpha\chi\beta}\partial^{\chi}f^{\alpha\beta} +$	$\beta_1^2 \partial_\chi f_\beta^{\ \delta} \partial^\chi f_\delta^{\ \beta} + \beta_1^2 \partial_\chi f^\delta_{\ \beta} \partial^\chi f_\delta^{\ \beta} + \frac{2}{3} \partial_\chi \omega^{\beta\zeta\alpha} \partial^\chi \omega_{\zeta\alpha\beta} + \frac{1}{3} \partial_\chi \omega^{\beta\zeta\alpha} \partial^\chi \omega_{\zeta\alpha\beta} + \frac{1}{3} \partial_\chi \omega^{\zeta\alpha\beta} \partial^\chi \omega_{\zeta\alpha\beta} + 4 \beta_1^2 \partial^\beta f_\alpha^{\ \alpha} \partial_\delta f_\beta^{\ \beta} - 2 \beta_1^2 \partial_\beta f_\gamma^{\ \beta} \partial_\delta f_{\chi\delta}^{\ \beta} + \frac{1}{3} \partial_\chi \omega_{\zeta\alpha\beta} \partial^\chi \omega_{\zeta\alpha\beta} + \frac{1}{3} \partial_\chi \omega_{\zeta\alpha\beta} \partial^\gamma g_\gamma^{\ \beta} \partial$	$\frac{2}{3} \partial^{\beta} \omega_{\alpha}^{\delta \zeta} \partial_{\delta} \omega_{\zeta\beta}^{\alpha} - \frac{2}{3} \partial^{\beta} \omega_{\alpha}^{\zeta\delta} \partial_{\delta} \omega_{\zeta\beta}^{\alpha} - \beta_{1}^{2} \partial^{\chi} f_{\zeta}^{\beta} \partial^{\zeta} f_{\beta\chi} - \beta_{1}^{2} \partial^{\chi} f_{\zeta}^{\beta} \partial^{\zeta} f_{\zeta} \partial^{\zeta$	Added source term: $f^{\alpha\beta} \tau_{\alpha\beta} + \omega^{\alpha\beta\chi} \sigma_{\alpha\beta\chi}$			$\omega_1^{\#1} + \alpha^{eta}$	$\omega_1^{\#2} + ^{lphaeta}$	$f_{1}^{\#1} + ^{\alpha eta}$
?、	$\searrow \underline{\underline{k}^{\mu}}$	?		dratic po		- ) ;	$\beta_1 < 0 \parallel \beta_1 > 0$		(No massive pa		

0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
$\omega_1^{\#2} +^{lpha}$	$f_{1^{\bar{-}}}^{\#1} +^{\alpha}$	$f_{1}^{\#2} +^{\alpha}$	

0

0

0

0

0

0

0

 $\omega_{1^{-}}^{\#1} +^{\alpha}$ 

	$\sigma_{1}^{\#1}$	$\sigma_{1}^{\#1}$ $\sigma_{1}^{\#2}$ $\sigma_{1}^{\#2}$ $\tau_{1}^{\#1}$	$\tau_1^{\#1}_{+}\alpha\beta$	$\sigma_{1}^{\#1}{}_{lpha}$	$\sigma_{1^-}^{\#2}$	$t_{1}^{\#1}$	$t_{1}^{\#2}$	Source constraints
$\sigma_1^{\#1} +^{\alpha\beta}$	0	0	0	0	0	0	0	SO(3) irreps # 0 1
$\sigma_1^{\#2} + \alpha \beta$	0	0	0	0	0	0	0	$\sigma_{0+}^{*1} = 0$
$\tau_1^{\#_1} + ^{\alpha\beta}$	0	0	0	0	0	0	0	$t_1^{\#2}\alpha == 0$ 3
$\sigma_{1}^{\#1} +^{\alpha}$	0	0	0	0	0	0	0	$t_{1}^{\#1}\alpha == 0 $ 3
$\sigma_{1}^{\#2} +^{\alpha}$	0	0	0	0	0	0	0	$\sigma_{1}^{\#2}\alpha == 0  3$
$\tau_1^{\#1} +^{\alpha}$	0	0	0	0	0	0	0	$\sigma_{1}^{\#1}{}^{\alpha} == 0 $ 3
$ au_1^{\#2} +^{lpha}$	0	0	0	0	0	0	0	$\tau_1^{\#1}{}^{\alpha\beta} == 0  3$

 $\tau_{1}^{\#1}\alpha\beta==0$ 

 $\sim$ 

 $\sigma_1^{\#2}\alpha\beta==0$ 

 $\sim$ 

 $\sigma_{1+}^{\#1}\alpha\beta==0$ 

2

 $\sigma_{2}^{\#1}\alpha\beta\chi==0$ 

U	
$f_{0}^{#2}$ †	0
$\omega_{0}^{\sharp 1}$ †	0
	$\sigma_{0}^{\#1}$
$\sigma_{\circ +}^{\#1}$ †	0
-0''	
$\tau_{0^{+}}^{\#1}$ †	0
$\tau_{0}^{\#2}$ †	0
$\sigma_{0}^{\#1}$ †	0
	$\omega_{0}^{\#1}$ † $\sigma_{0}^{\#1}$ † $\tau_{0}^{\#1}$ † $\tau_{0}^{\#2}$ †

33

Total #:

2

 $\sigma_{2+}^{\#1}\alpha\beta==0$ 

	$\sigma_{2^{+}\alpha\beta}^{\#1}$	$\tau_{2}^{\#1}_{\alpha\beta}$	$\sigma_{2}^{\#1}{}_{\alpha\beta\chi}$
$\sigma_{2}^{\sharp 1} \dagger^{\alpha \beta}$	0	0	0
$\tau_{2}^{\#1} \dagger^{\alpha\beta}$	0	$\frac{1}{2\beta_1^2 k^2}$	0
$\sigma_2^{\sharp 1} \dagger^{\alpha\beta\chi}$	0	0	0

_	$\omega_{0}^{\sharp 1}$	$f_{0^{+}}^{#1}$	$f_{0}^{#2}$	$\omega_0^{\#1}$
$\omega_{0^+}^{\#1}\dagger$	0	0	0	0
$f_{0^{+}}^{#1}\dagger$	0	$-4\beta_1^2k^2$	0	0
$f_{0}^{#2} \dagger$	0	0	0	0
$\omega_{0}^{\#1}$ †	0	0	0	$k^2$

	$\sigma_{0}^{\#1}$	$ au_{0}^{\#1}$	$ au_{0}^{\#2}$	$\sigma_0^{\sharp 1}$	
$\sigma_{0^{+}}^{\#1}$ †	0	0	0	0	
$\tau_{0}^{\#1}$ †	0	$-\frac{1}{4\beta_1^2 k^2}$	0	0	
$\tau_{0^{+}}^{\#2}$ †	0	0	0	0	
$\sigma_{0^{-}}^{\#1}$ †	0	0	0	$\frac{1}{k^2}$	

?		
$\sim k^{\mu}$	Quadratic pole	<u> </u>
?	Pole residue:	$\frac{1}{\beta_1^2} > 0$
?	Polarisations:	2

Jnitarity conditions

(No massive particles)