					GI.		
${\mathfrak l}_1^{\#2}$	0	0	0	$\frac{4i}{k(1+2k^2)(r_3+2r_5)}$	$\frac{i\sqrt{2}(3k^2(r_3+2r_5)+4t_3)}{k(1+2k^2)^2(r_3+2r_5)t_3}$	0	$\frac{6k^2(r_3+2r_5)+8t_3}{(1+2k^2)^2(r_3+2r_5)t_3}$
$\tau_{1^{-}}^{\#1}\alpha$	0	0	0	0	0	0	0
$\sigma_{1}^{\#2}{}_{lpha}$	0	0	0	$\frac{2\sqrt{2}}{k^2(1+2k^2)(r_3+2r_5)}$	$\frac{3 k^2 (r_3 + 2 r_5) + 4 t_3}{(k + 2 k^3)^2 (r_3 + 2 r_5) t_3}$	0	$-\frac{i\sqrt{2}(3k^2(r_3+2r_5)+4t_3)}{k(1+2k^2)^2(r_3+2r_5)t_3}$
$\sigma_{1^{-}\alpha}^{\#1}$	0	0	0	$\frac{2}{k^2 (r_3 + 2 r_5)}$	$\frac{2\sqrt{2}}{k^2(1+2k^2)(r_3+2r_5)}$	0	$-\frac{4i}{k(1+2k^2)(r_3+2r_5)}$
$\tau_{1}^{\#1}{}_{\!$	0	0	0	0	0	0	0
$\sigma_{1}^{\#2}{}_{\alpha\beta} \ \tau_{1}^{\#1}{}_{\alpha\beta}$	0	0	0	0	0	0	0
$\sigma_{1}^{\#1}{}_{\alpha\beta}$	$\frac{1}{k^2 (2 r_3 + r_5)}$	0	0	0	0	0	0
	$_{1}^{#1}$ $+^{\alpha\beta}$	$_{1}^{\#2}$ $+^{\alpha\beta}$	$_{1}^{#1}+^{\alpha\beta}$	$\sigma_{1}^{\#1} + ^{lpha}$	$\sigma_1^{\#2} +^{\alpha}$	$\tau_{1}^{\#1} \dagger^{\alpha}$	$\tau_1^{\#2} +^{\alpha}$

					m		
$f_{1^{ extstyle -}}^{\#2} lpha$	0	0	0	$-\frac{2}{3}ikt_3$	$\frac{1}{3}\bar{l}\sqrt{2}kt_3$	0	$\frac{2k^2t_3}{3}$
$f_{1^{\bar{-}}\alpha}^{\#1}$	0	0	0	0	0	0	0
$\omega_{1^{\bar{-}}\alpha}^{\#2}$	0	0	0	$-\frac{\sqrt{2}t_3}{3}$	<u>t3</u> 3	0	$-\frac{1}{3}\bar{l}\sqrt{2}kt_3$
$\omega_{1^{^{-}}\alpha}^{\#1}$	0	0	0	$k^2 \left(\frac{r_3}{2} + r_5\right) + \frac{2t_3}{3}$	$-\frac{\sqrt{2}t_3}{3}$	0	2 <i>ikt</i> 3 3
$f_{1}^{\#1}_{\alpha\beta}$	0	0	0	0	0	0	0
$\omega_1^{\#2}{}_+ \alpha_\beta$.	0	0	0	0	0	0	0
$\omega_1^{\#1}{}_+\alpha\beta$	$k^2 (2 r_3 + r_5)$	0	0	0	0	0	0
	$\omega_1^{\#1} +^{lphaeta}$	$\omega_1^{\#2} + ^{\alpha\beta}$	$f_1^{\#1} + ^{\alpha \beta}$	$\omega_{1}^{\#_1} +^{\alpha}$	$\omega_1^{\#2} +^{lpha}$	$f_{1^-}^{\#1} \dagger^\alpha$	$f_1^{\#2} +^{\alpha}$

?		
? k^{μ}	Quadratic pole	
	Pole residue:	$-\frac{1}{r_3(2r_3+r_5)(r_3+2r_5)p^2} > 0$
?	Polarisations:	2
?		

Unitarity	conditions

 $r_3 < 0 \&\& (r_5 < -\frac{r_3}{2} || r_5 > -2 r_3) || r_3 > 0 \&\& -2 r_3 < r_5 < -\frac{r_3}{2}$

(No massive particles)

 $rac{2}{3}t_3\;\omega_{\mu}^{\;\alpha\prime}\;\;\omega_{\kappa\alpha}^{\;\;\kappa-rac{1}{2}}r_3\,\partial_{\imath}\omega^{\kappa\lambda}_{\;\;\kappa}\partial^{\imath}\omega_{\lambda}^{\;\;lpha}$

Lagrangian density

	#	τ	T	1	3	3	3	3	2	2	25	
Source constraints	SO(3) irreps	$\sigma_{0^{-}}^{#1} == 0$	$\tau_{0+}^{\#2} == 0$	$2ik\sigma_0^{\#1}$	$\tau_{1}^{\#2}{}^{\alpha} + 2ik \sigma_{1}^{\#2}{}^{\alpha} = 0$	$\tau_{1}^{\#1}{}^{\alpha} == 0$	$\tau_1^{\#1}{}^{\alpha\beta} == 0$	$\sigma_{1+}^{\#2}\alpha\beta==0$	$\sigma_{2^{-}}^{\#1}\alpha\beta\chi==0$	$\tau_{2+}^{\#1}\alpha\beta=0$	Total #:	

	$\omega_{2^{+}\alpha\beta}^{\#1}$	$f_{2+\alpha\beta}^{\#1}$	$\omega_2^{\#1}{}_{\alpha\beta\chi}$
$\omega_{2}^{\#1}\dagger^{lphaeta}$	$-\frac{3k^2r_3}{2}$	0	0
$f_{2}^{\#1}\dagger^{\alpha\beta}$	0	0	0
$\omega_2^{\sharp 1} \dagger^{\alpha \beta \chi}$	0	0	0

 $\sigma_{2}^{\#1}$ $_{\alpha eta \chi}$

 $\sigma_{2}^{\#1}$

0

0

0

 $\tau_2^{\#1} + ^{\alpha\beta}$

0

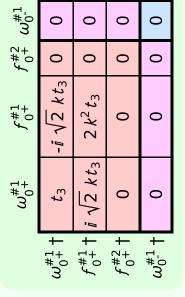
0

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

0

0

 $-\frac{2}{3k^2r_3}$



	$\sigma_0^{\#1}$	$ au_{0}^{\#1}$	$ au_{0}^{\#2}$	$\sigma_0^{\#1}$	
$\sigma_{0}^{\#1}$ †	$\frac{1}{(1+2k^2)^2t_3}$	$-\frac{i\sqrt{2} k}{(1+2k^2)^2 t_3}$	0	0	
$\tau_{0}^{\#1}$ †	$\frac{i\sqrt{2} k}{(1+2k^2)^2 t_3}$	$\frac{2k^2}{(1+2k^2)^2t_3}$	0	0	
$\tau_{0^{+}}^{\#2}$ †	0	0	0	0	
$\sigma_{0}^{\#1}$ †	0	0	0	0	

								ω_0^*	0	0	0	0	
	- <i>θ</i> γ	θ,			+	Ų.		$f_{0}^{\#2}$	0	0	0	0	
$r_5 \partial_i \omega^{\kappa \lambda}_{\ \ \kappa} \partial^i \omega_{\lambda}^{\ \ \alpha} + \frac{1}{2} r_3 \partial_{\alpha} \omega_{\lambda}^{\ \ \alpha} \partial_{\kappa} \omega^{\theta \kappa \lambda} - r_5 \partial_{\alpha} \omega_{\lambda}^{\ \ \alpha} \partial_{\kappa} \omega^{\theta \kappa \lambda} -$	$\frac{1}{2} r_3 \partial_\theta \omega_\lambda^{\ \alpha} \partial_\kappa \omega^{\theta \kappa \lambda} + r_5 \partial_\theta \omega_\lambda^{\ \alpha} \partial_\kappa \omega^{\theta \kappa \lambda} - \frac{1}{2} r_3 \partial_\alpha \omega_\lambda^{\ \alpha} \partial_\kappa \omega^{\kappa \lambda \theta} -$	$r_5\partial_\alpha\omega_\lambda^{\alpha}_{\theta}\partial_\kappa\omega^{\kappa\lambda\theta}+r_3\partial_\theta\omega_\lambda^{\alpha}_{\alpha}\partial_\kappa\omega^{\kappa\lambda\theta}+2r_5\partial_\theta\omega_\lambda^{\alpha}_{\alpha}\partial_\kappa\omega^{\kappa\lambda\theta}-$	+',+	1 _K f' +	$\frac{2}{3}t_3\partial^\alpha f^\lambda_{\alpha}\partial^\kappa f_{\lambda\kappa} - 4r_3\partial^\beta \omega_{\alpha}^{\lambda\alpha}\partial_\lambda \omega_{\alpha\beta}^{\prime} - \frac{1}{2}r_3\partial_\alpha \omega_{\alpha}^{\alpha}\partial^\lambda \omega^{\theta\kappa}_{\kappa} +$	$r_5 \partial_{\alpha} \omega_{\lambda}^{\ \ \alpha} \partial^{\lambda} \omega^{\theta \kappa}_{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $		$f_{0}^{\#1}$ $f_{0}^{\#2}$ $\omega_{0}^{\#}$	$-i\sqrt{2} kt_3 0$	$i\sqrt{2}kt_3$ $2k^2t_3$	0	0	
$^{1K\lambda}$ - $r_5 \partial_{\alpha} \omega$	$\frac{\theta \kappa \lambda}{2} - \frac{1}{2} r_3 \partial$	$^{\theta} + 2 r_5 \partial_{\theta}$	$\frac{2}{3}t_3 \omega_{\kappa\alpha}^{\alpha} \partial^{\kappa} f'_{\prime} - \frac{2}{3}t_3 \omega_{\kappa\lambda}^{\lambda} \partial^{\kappa} f'_{\prime} - \frac{4}{3}t_3 \partial^{\alpha} f_{\kappa\alpha} \partial^{\kappa} f'_{\prime} +$	$\frac{2}{3}t_3\partial_\kappa f^\lambda_{\lambda}\partial^\kappa f'_{\prime} + \frac{2}{3}t_3\ \omega_{\prime\alpha}^{\alpha}\partial^\kappa f'_{\kappa} + \frac{2}{3}t_3\ \omega_{\prime\lambda}^{\lambda}\partial^\kappa f'_{\kappa} +$	$-\frac{1}{2} r_3 \partial_{\alpha} \omega_{\beta}$	$\frac{\theta \kappa}{\kappa}$ - $r_5 \partial_{\theta} u$	Added source term: $f^{lphaeta} au_{lphaeta} + \omega^{lphaeta\chi} \sigma_{lphaeta\chi}$	$\omega_{0}^{\#1}$	<i>t</i> ₃	$i\sqrt{2}kt_3$	0	0	
$\omega_{\lambda}^{\alpha}_{\theta}\partial_{\kappa}\omega^{\theta}$	$\omega_{\lambda}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega$	$_{1}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega^{\kappa\lambda}$	$\partial^{\kappa} f'_{} - \frac{4}{3} t$	$^{\prime}\partial^{K}f^{\prime}+\frac{1}{2}$	$^{\lambda lpha} \partial_{\lambda} \omega_{lpha eta}^{ \prime}$	$\omega_{\lambda}^{\alpha}{}_{\alpha}\partial^{\lambda}\omega$	$\tau_{\alpha\beta} + \omega$		$\omega_{0}^{\#1}\dagger$	$f_{0}^{#1}$ †	$f_{0}^{#2}$ †	$\omega_{0}^{\#1} \uparrow$	
$r_3 \partial_{\alpha} \iota$	- r ₅ θθ	$^{3}\partial_{ heta}\omega_{}$	$\varepsilon_{_{\kappa\lambda}}$	3 ω _{1α} ο	$, \partial^{\beta}\omega'$	r3 00	ı: <i>faț</i>			$\sigma_0^{\#}$	1		7
$\alpha + \frac{1}{2}$	$\omega^{ heta \kappa \lambda}$ +	$(\gamma \theta + \Gamma)$	$\frac{1}{3} = \frac{2}{4}$	$+\frac{2}{3}t_{3}$	1k - 4 r3	$\frac{3k}{k} + \frac{1}{2}$	term	$\sigma_{0}^{\#1}$	+ -	1		- (1+	<i>ī</i> +∶
$\kappa^{\partial'}\omega_{\lambda}^{c}$	$\lambda_{\lambda}^{\alpha}{}_{\alpha}\partial_{\kappa}$	$^{\chi}_{\theta}\partial_{\kappa}\omega'$	$\alpha \frac{\alpha}{\lambda} \partial^{\kappa} f^{l}$	$^{\lambda}_{}\partial^{\kappa}f^{\prime}$	$^{\lambda}{}_{\alpha}\partial^{\kappa}f_{j}$	$^{\chi}{}^{\theta} \partial^{\gamma} \omega^{\epsilon}$	source	$\sigma_{0}^{\#1}$ $\tau_{0}^{\#1}$ $\tau_{0}^{\#2}$ $\sigma_{0}^{\#2}$	+ -	$1+2k^{2}$ $i\sqrt{2}$ $1+2k^{2}$ 0	$\frac{k}{2}$) ² t_3	(1+	2
$^{\prime}\omega^{K\lambda}$	$_3 \partial_ heta \mu$	$^{\beta}_{\alpha}\omega_{\lambda}^{}$	3 & KC	$_3 \partial_{\kappa} f$	$3 \partial^{\alpha} f$	$^{\beta}_{\alpha}\omega_{\lambda}^{c}$	ded	$ au_{0}^{\#2}$	†	0			
75 6	17 2	r ₅ ć	12 t	$\frac{2}{3}t$	12 t	75 (Ad	$\sigma_0^{\#1}$	†	0			