	$\sigma_{1^{+}lphaeta}^{\sharp1}$	$\sigma_{1}^{\#2}{}_{lphaeta}$	$ au_{1}^{\#1}{}_{lphaeta}$	$\sigma_{1^- lpha}^{\sharp 1}$	$\sigma_{1-\alpha}^{\#2}$	$ au_1^{\#1}{}_{lpha}$	τ ₁ -2 _α
$\sigma_{1}^{\sharp 1} \dagger^{\alpha \beta}$	0	$-\frac{\sqrt{2}}{t_1+k^2t_1}$	$-\frac{i\sqrt{2}k}{t_1+k^2t_1}$	0	0	0	0
$\sigma_{1}^{\#2}$ † lphaeta	$-\frac{\sqrt{2}}{t_1+k^2t_1}$	$\frac{-2 k^2 (2 r_1 + r_5) + t_1}{(1 + k^2)^2 t_1^2}$	$\frac{-2ik^3(2r_1+r_5)+ikt_1}{(1+k^2)^2t_1^2}$	0	0	0	0
$\tau_1^{#1} \dagger^{\alpha\beta}$	$\frac{i\sqrt{2}k}{t_1+k^2t_1}$	$\frac{i(2k^3(2r_1+r_5)-kt_1)}{(1+k^2)^2t_1^2}$	$\frac{-2 k^4 (2 r_1 + r_5) + k^2 t_1}{(1 + k^2)^2 t_1^2}$	0	0	0	0
$\sigma_{1}^{\sharp 1} \dagger^{lpha}$	0	0	0	$\frac{1}{k^2(r_1+r_5)}$	$-\frac{1}{\sqrt{2} (k^2 + 2 k^4) (r_1 + r_5)}$	0	$-\frac{i}{k(1+2k^2)(r_1+r_5)}$
$\sigma_1^{#2} \dagger^{\alpha}$	0	0	0	$-\frac{1}{\sqrt{2} (k^2 + 2 k^4) (r_1 + r_5)}$	$\frac{1}{\sqrt{2} (k^2 + 2 k^4) (r_1 + r_5)} \qquad \frac{6 k^2 (r_1 + r_5) + t_1}{2 (k + 2 k^3)^2 (r_1 + r_5) t_1}$		$\frac{i(6k^2(r_1+r_5)+t_1)}{\sqrt{2}k(1+2k^2)^2(r_1+r_5)t_1}$
$\tau_{1}^{#1} \dagger^{\alpha}$	0	0	0	0	0	0	0
$\tau_1^{\#2} \uparrow^{\alpha}$	0	0	0	$\frac{i}{k(1+2k^2)(r_1+r_5)}$	$-\frac{i(6k^2(r_1+r_5)+t_1)}{\sqrt{2}k(1+2k^2)^2(r_1+r_5)t_1}$	0	$\frac{6 k^2 (r_1 + r_5) + t_1}{(1 + 2 k^2)^2 (r_1 + r_5) t_1}$

Source constraints						
SO(3) irreps	#					
$\sigma_{0+}^{\#1} == 0$	1					
$\tau_{0^{+}}^{\#1} == 0$	1					
$\tau_{0^{+}}^{\#2} == 0$	1					
$\tau_{1}^{\#2\alpha} + 2 i k \sigma_{1}^{\#2\alpha} == 0$	3					
$\tau_{1}^{\#1\alpha} == 0$	3					
$\tau_{1+}^{\#1}{}^{\alpha\beta} + ik \sigma_{1+}^{\#2}{}^{\alpha\beta} == 0$	3					
$\tau_{2+}^{\#1\alpha\beta} - 2ik\sigma_{2+}^{\#1\alpha\beta} == 0$	5					
Total #:	17					

$\sigma_{2}^{#1} \uparrow^{\alpha\beta\chi}$	$\tau_{2+}^{*1} + \alpha \beta$	$\sigma_{2^{+}}^{#1} \dagger^{\alpha\beta}$	
0	$\frac{2i\sqrt{2}k}{(1+2k^2)^2t_1}$		$\sigma_{2}^{\#1}{}_{lphaeta}$
0	$\frac{4k^2}{(1+2k^2)^2t_1}$	$-\frac{2i\sqrt{2}k}{(1+2k^2)^2t_1}$	$ au_2^{\#1}_{lpha eta}$
$\frac{2}{2k^2r_1+t_1}$	0	0	$\sigma_{2^-}^{\#1} \alpha eta \chi$

$\omega_{2^{-}}^{*1} \dagger^{\alpha\beta\chi}$	$f_{2+}^{#1} \dagger^{\alpha\beta}$	$\omega_{2^{+}}^{*1} + \alpha \beta$	
0	$\frac{i k t_1}{\sqrt{2}}$	<u>t1</u> 2	$\omega_{2^{+}lphaeta}^{\#1}f_{2^{+}lphaeta}^{\#1}$
0	k^2t_1	$-\frac{ikt_1}{\sqrt{2}}$	$f_{2}^{\#1}$ $\alpha\beta$
$k^2 r_1 + \frac{t_1}{2}$	0	0	$\omega_{2^{-}}^{\#1}lphaeta\chi$

	$\sigma_{0}^{\#1}$	$\tau_0^{\#1}$	$\tau_{0}^{\#2}$	$\sigma_0^{\#1}$	
$\sigma_{0}^{\#1} +$	0	0	0	0	
$\tau_{0}^{\#1}$ †	0	0	0	0	
$\tau_{0}^{\#2}$ †	0	0	0	0	
7 ^{#1} †	0	0	0	$-\frac{1}{t_1}$	

	$\omega_0^{\sharp 1}$	$f_{0^{+}}^{#1}$	$f_{0^{+}}^{#2}$	$\omega_0^{\sharp 1}$
$\omega_{0}^{\#1}$ †	0	0	0	0
$f_{0}^{#1}\dagger$	0	0	0	0
$f_{0}^{#2}$ †	0	0	0	0
$\omega_0^{\#1}$ †	0	0	0	$-t_1$

Added source term: $\int f^{lphaeta} \; au_{lphaeta} + \; \omega^{lphaeta\chi} \; \sigma_{lphaeta\chi}$	$\frac{8}{3} r_1 \partial^{\beta} \omega_{,}^{\ \lambda \alpha} \partial_{\lambda} \omega_{\alpha \beta}^{\ \ \prime} + r_5 \partial_{\alpha} \omega_{\lambda}^{\ \alpha}_{\ \ \theta} \partial^{\lambda} \omega^{\theta \kappa}_{\ \ \kappa} - r_5 \partial_{\theta} \omega_{\lambda}^{\ \alpha}_{\ \alpha} \partial^{\lambda} \omega^{\theta \kappa}_{\ \ \kappa}$	$\frac{2}{3} r_1 \partial_{\kappa} \omega^{\alpha\beta\theta} \partial^{\kappa} \omega_{\alpha\beta\theta} - \frac{2}{3} r_1 \partial_{\kappa} \omega^{\theta\alpha\beta} \partial^{\kappa} \omega_{\alpha\beta\theta} + \frac{2}{3} r_1 \partial^{\beta} \omega_{\mu}^{\alpha\lambda} \partial_{\lambda} \omega_{\alpha\beta}^{\prime\prime} -$	$\frac{1}{2}t_1\partial_\kappa f_{\theta}^{\lambda}\partial^\kappa f_{\lambda}^{\theta}+\frac{1}{2}t_1\partial_\kappa f^\lambda_{\theta}\partial^\kappa f_{\lambda}^{\theta}-\frac{1}{3}t_1\partial^\alpha f^\lambda_{\alpha}\partial^\kappa f_{\lambda\kappa}^{}+$	$2t_1 \omega_{\kappa\theta} \partial^{\kappa} f^{\theta} - \frac{1}{3}t_1 \omega_{\alpha}^{\alpha} \partial^{\kappa} f'_{\kappa} - \frac{1}{3}t_1 \omega_{\lambda}^{\lambda} \partial^{\kappa} f'_{\kappa} + \frac{1}{2}t_1 \partial^{\alpha} f^{\lambda}_{\kappa} \partial^{\kappa} f_{\lambda\alpha} +$	$\frac{1}{3}t_1 \omega_{\kappa\alpha}^{} \partial^{\kappa}f'_{} + \frac{1}{3}t_1 \omega_{\kappa\lambda}^{} \partial^{\kappa}f'_{} + \frac{2}{3}t_1 \partial^{\alpha}f_{} \partial^{\kappa}f'_{} - \frac{1}{3}t_1 \partial_{\kappa}f^{\lambda}_{} \partial^{\kappa}f'_{} +$	$\frac{1}{2} t_1 \partial^{\alpha} f_{\theta \kappa} \partial^{\kappa} f_{\alpha}^{\ \theta} - \frac{1}{2} t_1 \partial^{\alpha} f_{\kappa \theta} \partial^{\kappa} f_{\alpha}^{\ \theta} - \frac{1}{2} t_1 \partial^{\alpha} f^{\lambda}_{\kappa} \partial^{\kappa} f_{\alpha \lambda} +$	$r_5\partial_ heta\omega_{\lambda\ \alpha}^{\ lpha}\partial_\kappa\omega^{ heta\kappa\lambda}$ - $r_5\partial_lpha\omega_{\lambda\ heta}^{\ lpha}\partial_\kappa\omega^{\kappa\lambda heta}+2r_5\partial_ heta\omega_{\lambda\ lpha}^{\ lpha}\partial_\kappa\omega^{\kappa\lambda heta}$ -	$\frac{2}{3} r_1 \partial_{\theta} \omega_{\alpha\beta}^{ \kappa} \partial_{\kappa} \omega^{\alpha\beta\theta} + \frac{2}{3} r_1 \partial_{\theta} \omega_{\alpha\beta}^{ \kappa} \partial_{\kappa} \omega^{\theta\alpha\beta} - r_5 \partial_{\alpha} \omega_{\lambda}^{ \alpha}_{ \theta} \partial_{\kappa} \omega^{\theta\kappa\lambda} +$	$-\frac{1}{3}t_1\;\omega_{,}^{\;\alpha_{l}}\;\omega_{\kappa\alpha}^{\;\;\kappa}-t_1\;\omega_{,}^{\;\kappa\lambda}\;\omega_{\kappa\lambda}^{\;\;l}-r_5\;\partial_{,}\omega_{\;\;\kappa}^{\kappa\lambda}\;\partial_{}^{l}\omega_{\lambda}^{\;\;\alpha}-\frac{2}{3}r_1\;\partial_{}^{\beta}\omega_{\;\;\kappa}^{\theta\alpha}\;\partial_{\theta}\omega_{\alpha\beta}^{\;\;\kappa}-$	Lagrangian density	
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 $\begin{array}{c|c}
t_1 \\
\sqrt{2} \\
\hline
\sqrt{2}
\end{array}$

 $f_{1^-\alpha}^{\#1}$

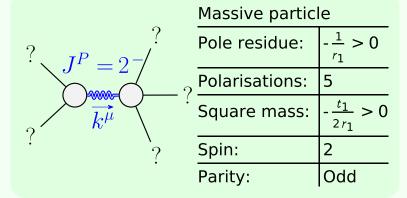
 $\begin{array}{c|c}
t_1 \\
\hline
3 \sqrt{2} \\
\hline
t_1 \\
\hline
3
\end{array}$

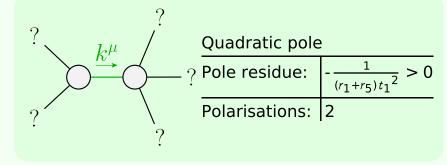
√2

 $-\frac{1}{3}ikt_1$

 kt_1

 $\frac{2k^2t_1}{3}$





Unitarity conditions

 $r_1 < 0 \&\& r_5 < -r_1 \&\& t_1 > 0$