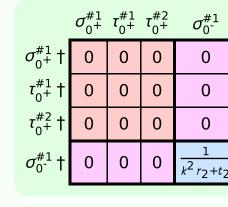
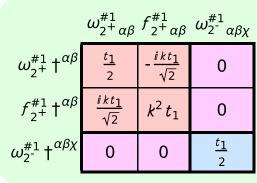
Lagrangian density $-\frac{1}{3}t_1\;\omega_{\kappa}^{\alpha\prime}\;\omega_{\kappa\alpha}^{\ \ \kappa}-\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \prime}\;\omega_{\kappa\lambda}^{\ \ \prime}+\frac{2}{3}t_2\;\omega_{\kappa\lambda}^{\ \ \prime}\;\omega_{\kappa\lambda}^{\ \ \prime}+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \prime}+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \prime}+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \prime}+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ }+\frac{1}{3}t_1\;\omega_{\kappa\lambda}^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	ı
$\frac{1}{3}r_2\partial_\theta\omega_{\alpha\beta}^{\beta}\partial_\kappa\omega^{\alpha\beta\theta} - \frac{2}{3}r_2\partial_\theta\omega_{\alpha\beta}^{\beta}\partial_\kappa\omega^{\theta\alpha\beta} - \frac{1}{3}t_1\partial^\alpha f_{\theta\kappa}\partial^\kappa f_\alpha^{\beta} +$ $\frac{1}{6}t_2\partial^\alpha f_{\theta\kappa}\partial^\kappa f_\alpha^{\theta} - \frac{2}{3}t_1\partial^\alpha f_{\kappa\theta}\partial^\kappa f_\alpha^{\theta} - \frac{1}{6}t_2\partial^\alpha f_{\kappa\theta}\partial^\kappa f_\alpha^{\theta} - \frac{1}{3}t_1\partial^\alpha f^\lambda_{\kappa}\partial^\kappa f_{\alpha\lambda} +$	
$\frac{1}{6}t_{2}\partial^{\alpha}f^{\lambda}_{\ \ }\partial^{\kappa}f_{\alpha\lambda} + \frac{1}{3}t_{1}\ \omega_{\kappa\alpha}^{\ \ \alpha}\partial^{\kappa}f'_{\ \ } + \frac{1}{3}t_{1}\ \omega_{\kappa\lambda}^{\ \ \lambda}\partial^{\kappa}f'_{\ \ } + \frac{2}{3}t_{1}\partial^{\alpha}f_{\kappa\alpha}\partial^{\kappa}f'_{\ \ } - \\ \\ \frac{1}{3}t_{1}\partial_{\kappa}f^{\lambda}_{\ \ }\partial^{\kappa}f'_{\ \ } + \frac{1}{3}t_{1}\ \omega_{\beta\kappa}\partial^{\kappa}f'_{\ \ } + \frac{1}{3}t_{2}\ \omega_{\beta\kappa}\partial^{\kappa}f'_{\ \ } + \frac{4}{3}t_{1}\ \omega_{\beta\kappa}\partial^{\kappa}f'_{\ \ } - \\ \\$	
$\frac{2}{3}t_{2} \omega_{IK\theta} \partial^{K} f^{I\theta} - \frac{1}{3}t_{1} \omega_{\theta IK} \partial^{K} f^{I\theta} - \frac{1}{3}t_{2} \omega_{\theta IK} \partial^{K} f^{I\theta} + \frac{2}{3}t_{1} \omega_{\theta KI} \partial^{K} f^{I\theta} +$ $\frac{2}{3}t_{2} \omega_{\theta KI} \partial^{K} f^{I\theta} - \frac{1}{3}t_{1} \omega_{I\alpha} \partial^{K} f^{I}_{K} - \frac{1}{3}t_{1} \omega_{I\lambda}^{\lambda} \partial^{K} f^{I}_{K} + \frac{1}{3}t_{1} \partial^{\alpha} f^{\lambda}_{\lambda} \partial^{K} f_{\lambda\alpha} -$	
$\frac{1}{6}t_2\partial^\alpha f^\lambda_{}\partial^\kappa f_{\lambda\alpha} + \frac{1}{3}t_1\partial_\kappa f_{}^{}\partial^\kappa f_{}^{} - \frac{1}{6}t_2\partial_\kappa f_{}^{}\partial^\kappa f_{}^{} + \frac{2}{3}t_1\partial_\kappa f^\lambda_{}\partial^\kappa f_{}^{} +$	
$\frac{1}{6}t_2\partial_{\kappa}f^{\lambda}_{\ \ \theta}\partial^{\kappa}f_{\lambda}^{\ \ \theta} - \frac{1}{3}t_1\partial^{\alpha}f^{\lambda}_{\ \ \alpha}\partial^{\kappa}f_{\lambda\kappa} + \frac{1}{3}r_2\partial_{\kappa}\omega^{\alpha\beta\theta}\partial^{\kappa}\omega_{\alpha\beta\theta} +$ $\frac{2}{3}r_2\partial_{\kappa}\omega^{\theta\alpha\beta}\partial^{\kappa}\omega_{\alpha\beta\theta} - \frac{2}{3}r_2\partial^{\beta}\omega^{\alpha\lambda}_{\ \ \alpha\beta} + \frac{2}{3}r_2\partial^{\beta}\omega^{\lambda\alpha}_{\ \ \alpha\beta} + \frac{2}{3}r_2\partial^{\beta}\omega^{\lambda\alpha}_{\ \ \alpha\beta} +$	

$\tau_{1}^{\#2}{}_{\alpha}$	0	0	0	$\frac{12ik}{(3+4k^2)^2t_1}$	$\frac{12i\sqrt{2}k}{(3+4k^2)^2t_1}$	0	$\frac{24 k^2}{(3+4 k^2)^2 t_1}$
$\tau_{1}^{\#1}{}_{\alpha}$	0	0	0	0	0	0	0
$\sigma_{1}^{\#2}{}_{lpha}$	0	0	0	$\frac{6\sqrt{2}}{(3+4k^2)^2t_1}$	$\frac{12}{(3+4k^2)^2t_1}$	0	$-\frac{12i\sqrt{2}k}{(3+4k^2)^2t_1}$
$\sigma_{1}^{\#1}{}_{\alpha}$	0	0	0	$\frac{6}{(3+4 k^2)^2 t_1}$	$\frac{6\sqrt{2}}{(3+4k^2)^2t_1}$	0	$-\frac{12ik}{(3+4k^2)^2t_1}$
$\tau_{1}^{\#1}_{+}$	$\frac{i\sqrt{2} k(t_1-2t_2)}{3(1+k^2)t_1t_2}$	$\frac{i k (t_1 + 4 t_2)}{3 (1 + k^2)^2 t_1 t_2}$	$\frac{k^2 (t_1 + 4t_2)}{3 (1 + k^2)^2 t_1 t_2}$	0	0	0	0
$\sigma_{1}^{\#2}{}_{\alpha\beta}$	$\frac{\sqrt{2} (t_1 - 2t_2)}{3 (1 + k^2) t_1 t_2}$	$\frac{t_1+4t_2}{3(1+k^2)^2t_1t_2}$	$-\frac{i k (t_1 + 4 t_2)}{3 (1 + k^2)^2 t_1 t_2}$	0	0	0	0
$\sigma_{1}^{\#1}{}_{\alpha\beta}$		$\frac{\sqrt{2} (t_1 - 2t_2)}{3(1 + k^2) t_1 t_2}$	$-\frac{i\sqrt{2}k(t_1-2t_2)}{3(1+k^2)t_1t_2}$	0	0	0	0
	$\sigma_1^{\#1} + \alpha^{\beta}$	$\sigma_{1}^{\#2} + \alpha^{\beta}$	$\tau_1^{\#1} + \alpha \beta$	$\sigma_1^{\#1} +^{lpha}$	$\sigma_{1}^{#2} + \alpha$	$\tau_{1}^{\#1} +^{\alpha}$	$\tau_1^{\#2} + ^{\alpha}$

$f_{1^-}^{\#2}$	0	0	0	<i>آلاد</i> ا	$\frac{1}{3}\bar{l}\sqrt{2}kt_1$	0	$\frac{2 k^2 t_1}{3}$
$f_{1^-}^{\#1}$	0	0	0	0	0	0	0
$\omega_{1^{-}\alpha}^{\#2}$	0	0	0	$\frac{t_1}{3\sqrt{2}}$	8 17	0	$-\frac{1}{3}\overline{i}kt_1\bigg -\frac{1}{3}\overline{i}\sqrt{2}kt_1\bigg $
$\omega_{1^{-}}^{\#1}{}_{\alpha}$	0	0	0	9 6	$\frac{t_1}{3\sqrt{2}}$	0	$-\frac{1}{3}ikt_1$
$f_{1}^{\#1}_{\alpha\beta}$	$-\frac{ik(t_1-2t_2)}{3\sqrt{2}}$	$\frac{1}{3}\tilde{l}k\left(t_1+t_2\right)$	$\frac{1}{3} k^2 (t_1 + t_2)$	0	0	0	0
$\omega_{1}^{\#2}_{\alpha\beta}$	$-\frac{t_1-2t_2}{3\sqrt{2}}$	$\frac{t_1 + t_2}{3}$	$-\frac{1}{3}\bar{l}k(t_1+t_2)\Bigg ^{\frac{1}{3}}k^2(t_1+t_2)$	0	0	0	0
$\omega_{1}^{\#1}_{\alpha\beta}$	$\omega_{1}^{\#1} + \alpha \beta = \frac{1}{6} (t_1 + 4t_2)$	$-\frac{t_1-2t_2}{3\sqrt{2}}$	$\frac{ik(t_1-2t_2)}{3\sqrt{2}}$	0	0	0	0
	$\omega_1^{\#1} + \sigma^{eta}$	$\omega_1^{\#2} + \alpha^{eta}$	$f_{1}^{\#1} + \alpha \beta$	$\omega_{1}^{\#1} +^{\alpha}$	$\omega_1^{\#2} +^{lpha}$	$f_{1}^{\#1} \dagger^{lpha}$	$f_{1}^{\#2} +^{lpha}$





 \sim

0

 $\sigma_{1}^{\#1}{}^{lpha}$:

 $\tau_{1}^{\#2}{}^{\alpha}+2\,i\,k$

 $\sigma_{0}^{\#1} == 0$

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

 \sim

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

 \sim

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

 $^{\circ}$

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

 $\tau_{2}^{\#1}\alpha\beta$ - 2 ik $\sigma_{2}^{\#1}\alpha\beta$ == 0 5

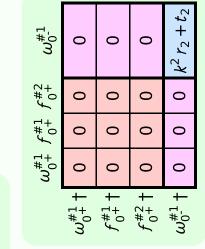
Total #:

1 1 1 #

Source constraints

SO(3) irreps

 $\tau_{0}^{\#2} == 0$



/			
$\sigma_{2}^{\#1}{}_{lphaeta\chi}$	0	0	$\frac{2}{t_1}$
	$-\frac{2\bar{i}\sqrt{2}k}{(1+2k^2)^2t_1}$	$\frac{4k^2}{(1+2k^2)^2t_1}$	0
$\sigma_{2}^{\#1}{}_{\alpha\beta}$	1 –	$\frac{2i\sqrt{2}k}{(1+2k^2)^2t_1}$	0
	$r_{2}^{#1} + \alpha \beta$	${r_{2}^{\#1}} + ^{\alpha\beta}$	$\frac{1}{2}$ $+ \alpha \beta \chi$

 $\frac{2}{t_1}$

?	?	
	$J^P = 0^-$	
	$\frac{1}{k^{\mu}}$	
?	\	
	?	

	Massive particle			
? /	Pole residue:	$-\frac{1}{r_2} > 0$		
$J^P = 0^-$	Polarisations:	1		
k^{μ}	Square mass:	$-\frac{t_2}{r_2} > 0$		
?	Spin:	0		
	Parity:	Odd		

(No massless particles)