	$\tau_{1^-}^{\#2}\alpha$	0	0	0	$\frac{2ik}{t_1 + 2k^2t_1}$	$\frac{i\sqrt{2}k}{(1+2k^2)^2t_1}$	0	$\frac{2k^2}{(1+2k^2)^2t_1}$
ν _ω	$\tau_{1}^{\#1}{}_{\alpha}$	0	0	0	0	0	0	0
$\beta \omega^{\theta \alpha} {}_{\kappa} \partial_{\theta} \omega_{\alpha \beta}^{\kappa} - \partial_{\kappa} \omega^{\theta \kappa \lambda} - \partial_{\kappa} \omega^{\theta \kappa} - \partial_{\kappa} \omega^{\phi \kappa}$	$\sigma_{1}^{\#2}{}_{\alpha}$	0	0	0	$\frac{\sqrt{2}}{t_1 + 2k^2t_1}$	$\frac{1}{(1+2k^2)^2t_1}$	0	$-\frac{i\sqrt{2}k}{(1+2k^2)^2t_1}$
$\int_{k}^{\lambda} \partial^{l} \omega_{\lambda}^{\alpha} a^{-\frac{2}{3}} r_{1} \partial^{\beta} \omega^{\theta \alpha}_{\lambda}^{\lambda}$ $\partial^{l} \partial^{l} \partial$	$\sigma_{1^{-}}^{\#1}{}_{\alpha}$	0	0	0	0	$\frac{\sqrt{2}}{t_1 + 2k^2t_1}$	0	$-\frac{2ik}{t_1+2k^2t_1}$
Lagrangian density $-t_1 \omega_{\kappa}^{\alpha l} \omega_{\kappa}^{\kappa} - t_1 \omega_{\kappa}^{\kappa l} \omega_{\kappa}^{\lambda} + r_1 \partial_{l} \omega^{\kappa l}_{\kappa} \partial^{l} \omega_{\kappa}^{\alpha} - \frac{2}{3} r_1 \partial^{\beta} \omega^{\beta \alpha} \partial^{\omega}_{\kappa}^{\beta} - t_1 \omega_{\kappa}^{\kappa l} + \omega_{\kappa}^{\lambda} + r_1 \partial_{l} \omega_{\kappa}^{\kappa} \partial^{\kappa} \omega^{\beta \beta} + r_1 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial^{\beta} \omega^{\beta \kappa}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} - r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} \omega_{\lambda}^{\beta} + r_1 \partial^{\beta} \omega_{\lambda}^{\beta} \partial^{\beta} $	$\tau_{1}^{\#1}_{+}$	$-\frac{i\sqrt{2}k}{t_1+k^2t_1}$	$-\frac{i(2k^3r_1-kt_1)}{(1+k^2)^2t_1^2}$	$\frac{-2k^4r_1+k^2t_1}{(1+k^2)^2t_1^2}$	0	0	0	0
Lagrangian density -t_1 $\omega_r^{\alpha\prime}$ $\omega_{\kappa\alpha}^{\kappa} - t_1 \omega_r^{\kappa\lambda}$ $\omega_{\kappa\lambda}^{\prime} + t_1 \omega_{\kappa\lambda}^{\prime}$ $\omega_{\kappa\lambda}^{\prime} + t_1 \omega_{\kappa\lambda}^{\prime}$ $\omega_{\kappa\lambda}^{\prime} + t_1 \partial_{\alpha}\omega_{\lambda}^{\alpha}$ $\frac{2}{3} r_1 \partial_{\theta}\omega_{\alpha\beta}^{\kappa} \partial_{\kappa}\omega^{\theta\beta} + \frac{2}{3} r_1 \partial_{\theta}\omega_{\lambda}^{\alpha}$ $r_1 \partial_{\theta}\omega_{\lambda}^{\alpha} \partial_{\kappa}\omega^{\theta\kappa\lambda} + r_1 \partial_{\alpha}\omega_{\lambda}^{\alpha} \partial_{\kappa}^{\prime}$ $\frac{1}{2} t_1 \partial^{\alpha} f_{\theta\kappa} \partial^{\kappa} f_{\alpha}^{\prime} - \frac{1}{2} t_1 \partial^{\alpha} f_{\kappa\theta} \partial^{\kappa}$ $t_1 \omega_{\kappa\alpha}^{\alpha} \partial^{\kappa} f'_{\prime} + t_1 \omega_{\kappa\lambda}^{\lambda} \partial^{\kappa} f'_{\prime} + t_1 \omega_{\kappa\lambda}^{\lambda} \partial^{\kappa} f'_{\kappa}^{\prime}$ $\frac{1}{2} t_1 \partial_{\kappa} f_{\theta}^{\lambda} \partial^{\kappa} f'_{\lambda}^{\prime} - t_1 \omega_{\alpha}^{\alpha} \partial^{\kappa} f'_{\kappa}^{\prime}$ $\frac{1}{2} t_1 \partial_{\kappa} f_{\theta}^{\lambda} \partial^{\kappa} f'_{\lambda}^{\prime} + \frac{1}{2} t_1 \partial_{\kappa} f'_{\lambda}^{\prime} \partial^{\kappa} f'_{\kappa}^{\prime}$ $\frac{2}{3} r_1 \partial_{\kappa} \omega^{\alpha\beta\theta} \partial^{\kappa} \omega_{\alpha\beta\theta} - \frac{2}{3} r_1 \partial_{\kappa} \omega^{\beta\theta}$ $\frac{2}{3} r_1 \partial^{\beta} \omega_{\lambda}^{\lambda} \partial^{\lambda} \omega_{\alpha\beta}^{\prime} - r_1 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial^{\beta} f'_{\lambda}^{\prime}$ Added source term: $f_{\alpha\beta} f_{\alpha\beta} f'_{\alpha\beta} f'_{\alpha\beta} f'_{\alpha\beta} f'_{\alpha\beta} f'_{\alpha\beta}^{\prime}$	$\sigma_{1}^{\#2}{}_{lphaeta}$	$-\frac{\sqrt{2}}{t_1+k^2t_1}$	$\frac{-2k^2r_1+t_1}{(1+k^2)^2t_1^2}$	$\frac{i(2k^3r_1-kt_1)}{(1+k^2)^2t_1^2}$	0	0	0	0
Lagrangian density $-t_{1} \omega_{,\alpha'}^{\alpha\prime} \omega_{\kappa\alpha}^{\kappa} - t_{1} \omega_{,\kappa}^{\kappa}$ $\frac{2}{3} r_{1} \partial_{\theta} \omega_{\alpha\beta}^{\kappa} \partial_{\kappa} \omega^{\alpha\beta\theta} + \frac{2}{3} r_{1} \partial_{\theta} \omega_{\alpha\beta}^{\kappa} \partial_{\kappa} \omega^{\theta\kappa\lambda} + r_{1}$ $\frac{1}{2} t_{1} \partial^{\alpha} f_{\theta \kappa} \partial^{\kappa} f_{\alpha}^{\theta} - \frac{1}{2} t_{1}$ $t_{1} \omega_{\kappa\alpha}^{\alpha} \partial^{\kappa} f'_{\beta} + t_{1} \omega_{\kappa}$ $2 t_{1} \omega_{,\kappa\theta}^{\alpha} \partial^{\kappa} f'_{\beta} + t_{1} \omega_{\kappa}$ $\frac{1}{2} t_{1} \partial_{\kappa} f_{\theta}^{\lambda} \partial^{\kappa} f_{\beta}^{\theta} + \frac{1}{2} t_{2}$ $\frac{2}{3} r_{1} \partial_{\kappa} \omega^{\alpha\beta\theta} \partial^{\kappa} \omega_{\alpha\beta\theta} - \frac{2}{3}$ $\frac{2}{3} r_{1} \partial^{\beta} \omega_{\lambda}^{\lambda\alpha} \partial_{\lambda} \omega_{\alpha\beta}^{\beta} - r_{1}$ Added source term	$\sigma_1^{\#1}{}_+\alpha\beta$	0	$-\frac{\sqrt{2}}{t_1+k^2t_1}$	$\sqrt{2} k$ $t_1 + k^2 t_1$	0	0	0	0
Lagrang- $t_1 \omega_{\lambda}^{\alpha\prime}$ $\frac{2}{3} r_1 \partial_{\theta} \omega_{\lambda}^{\alpha\prime}$ $r_1 \partial_{\theta} \omega_{\lambda}^{\alpha}$ $\frac{1}{2} t_1 \partial^{\alpha} f_{\epsilon}$ $t_1 \omega_{\kappa\alpha}^{\alpha\prime}$ $2 t_1 \omega_{\kappa\epsilon}^{\alpha\prime}$ $\frac{1}{2} t_1 \partial_{\kappa} f_{\epsilon}$ $\frac{2}{2} r_1 \partial_{\kappa} \omega_{\nu}^{\alpha\prime}$ $\frac{2}{3} r_1 \partial_{\delta} \omega_{\nu}^{\alpha\prime}$ Added s		$\sigma_{1}^{\#1} + \alpha \beta$	$\sigma_{1}^{\#2} + \alpha^{eta}$	$\tau_1^{\#1} + \alpha \beta$	$\sigma_{1}^{\#1} +^{\alpha}$	$\sigma_1^{\#2} +^{\alpha}$	$\tau_{1}^{\#1} +^{\alpha}$	$\tau_1^{\#2} +^{\alpha}$
	_							

	$\omega_0^{\sharp 1}$	$f_{0}^{#1}$	$f_{0+}^{#2}$	$\omega_0^{\sharp 1}$
$\omega_{0}^{\sharp 1}$ †	-t ₁	$i \sqrt{2} kt_1$	0	0
$f_{0}^{#1}\dagger$	$-i \sqrt{2} kt_1$	$-2 k^2 t_1$	0	0
$f_{0}^{#2}$ †	0	0	0	0
$\omega_0^{\sharp 1}$ †	0	0	0	-t ₁

0

0

0

	$\omega_{2^{+}\alpha\beta}^{\#1}$	$f_{2}^{\#1}{}_{lphaeta}$	$\omega_{2^{-} \alpha \beta \chi}^{\# 1}$
$\omega_{2}^{\#1}\dagger^{lphaeta}$	<u>t</u> 1 2	$-\frac{ikt_1}{\sqrt{2}}$	0
$f_{2}^{#1} \dagger^{\alpha\beta}$	$\frac{i k t_1}{\sqrt{2}}$	$k^2 t_1$	0
$\omega_2^{#1} \dagger^{\alpha\beta\chi}$	0	0	$k^2 r_1 + \frac{t_1}{2}$

Source constraints	
SO(3) irreps	#
$\tau_{0+}^{\#2} == 0$	1
$\tau_{0+}^{\#1} - 2 i k \sigma_{0+}^{\#1} == 0$	1
$\tau_1^{\#2\alpha} + 2 i k \sigma_1^{\#2\alpha} == 0$	3
$\tau_{1}^{\#1\alpha} == 0$	3
$\tau_{1+}^{\#1\alpha\beta} + i k \sigma_{1+}^{\#2\alpha\beta} == 0$	3
$\tau_{2+}^{\#1\alpha\beta} - 2ik\sigma_{2+}^{\#1\alpha\beta} == 0$	5
Total #:	16

$\sigma_{0}^{\#1}$	0	0	0	$-\frac{1}{t_1}$
$ au_0^{\#2}$	0	0	0	0
${\tau_0^{\#1}}$	$\frac{i\sqrt{2}k}{(1+2k^2)^2t_1}$	$-\frac{2k^2}{(1+2k^2)^2t_1}$	0	0
$\sigma_0^{\#1}$	$-\frac{1}{(1+2k^2)^2t_1}$	$-\frac{i\sqrt{2}k}{(1+2k^2)^2t_1}$	0	0
	$\sigma_{0}^{\#1}$ †	$\tau_{0}^{\#1}$ †	$\tau_{0}^{\#2}$ †	$\sigma_{0}^{\#1}\dagger$

$f_{1^-}^{\#1}$	0	0	0	0	0	0	0
$\omega_{1^{\bar{-}}}^{\#2}{}_{\alpha}$	0	0	0	$\frac{t_1}{\sqrt{2}}$	0	0	0
$\omega_{1^{\bar{-}}}^{\#1}{}_{\alpha}$	0	0	0	- <u>41</u>	$\frac{t_1}{\sqrt{2}}$	0	$-\bar{l}kt_1$
$f_{1}^{\#1}_{\alpha\beta}$	$-\frac{ikt_1}{\sqrt{2}}$	0	0	0	0	0	0
$\omega_{1}^{\#2}$	$-\frac{t_1}{\sqrt{2}}$	0	0	0	0	0	0
$\omega_{1}^{\#1}{}_{+}\alpha\beta$	$k^2 r_1 - \frac{t_1}{2}$	$-\frac{t_1}{\sqrt{2}}$	$\frac{i k t_1}{\sqrt{2}}$	0	0	0	0
,	$\omega_1^{\#1} + \alpha^{\beta}$	$\omega_1^{\#2} + \alpha^{\beta}$	$f_{1}^{\#1} + \alpha \beta$	$\omega_1^{\#1} +^{\alpha}$	$\omega_1^{\#2} +^{\alpha}$	$f_{1}^{\#1} \dagger^{lpha}$	$f_{1}^{#2} \dagger^{\alpha}$

 $\bar{\it l}\,k\,t_1$

0

0

0

 $\sigma_{2^{-}}^{\#1}{}_{lphaeta\chi}$

0

 $\frac{2}{(1+2\,k^2)^2\,t_1}$

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

0

 $\frac{4k^2}{(1+2k^2)^2t_1}$

 $\frac{2 i \sqrt{2} k}{(1+2 k^2)^2 t_1}$

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

0

0

 $\sigma_{2}^{\#1} +^{lphaeta\chi}$

	Massive partic	le
? $J^P = 2^{-/}$	Pole residue:	$-\frac{1}{r_1} > 0$
2	Polarisations:	5
k^{μ}	Square mass:	$-\frac{t_1}{2r_1} > 0$
?	Spin:	2
·	Parity:	Odd

7	Initarity conditions
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(No massless particles)