	$\sigma_{1^-\,\alpha}^{\#1}$	$\sigma_{1^-\,\alpha}^{\#2}$	$\tau_{1^-\,\alpha}^{\#1}$	$\tau_{1^-\,\alpha}^{\#2}$
$\sigma_{1^+\,\alpha\beta}^{\#1}\,\dagger^{\alpha\beta}$	0	0	0	0
$\sigma_{1^+\,\alpha\beta}^{\#2}\,\dagger^{\alpha\beta}$	0	0	0	0
$\tau_{1^+\,\alpha\beta}^{\#1}\,\dagger^{\alpha\beta}$	0	0	0	0
$\sigma_{1^-}^{\#1}\,\dagger^{\alpha}$	$\frac{2\,(t_1+t_3)}{3t_1t_3+2k^2r_5\,(t_1+t_3)}$	$\frac{\sqrt{2}\,(t_1-2t_3)}{(1+2k^2)\,(3t_1t_3+2k^2r_5\,(t_1+t_3))}$	0	$-\frac{2ik(t_1-2t_3)}{(1+2k^2)\,(3t_1t_3+2k^2r_5\,(t_1+t_3))}$
$\sigma_{1^-}^{\#2}\,\dagger^{\alpha}$	$-\frac{\sqrt{2}\,(t_1-2t_3)}{(1+2k^2)\,(3t_1t_3+2k^2r_5\,(t_1+t_3))}$	$\frac{6k^2r_5+t_1+4t_3}{(1+2k^2)^2\,(3t_1t_3+2k^2r_5\,(t_1+t_3))}$	0	$\frac{i\sqrt{2}\,k\,(6k^2r_5+t_1+4t_3)}{(1+2k^2)^2\,(3t_1t_3+2k^2r_5\,(t_1+t_3))}$
$\tau_{1^-}^{\#1}\,\dagger^{\alpha}$	0	0	0	0
$\tau_{1^-}^{\#2}\,\dagger^{\alpha}$	0	$\frac{i\sqrt{2}\,k\,(6k^2r_5+t_1+4t_3)}{(1+2k^2)^2\,(3t_1t_3+2k^2r_5\,(t_1+t_3))}$	0	$-\frac{2k^2\,(6k^2r_5+t_1+4t_3)}{(1+2k^2)^2\,(3t_1t_3+2k^2r_5\,(t_1+t_3))}$

	$\omega_{1^+\,\alpha\beta}^{\#1}$	$\omega_{1^+\,\alpha\beta}^{\#2}$	$f_{1^+\,\alpha\beta}^{\#1}$	$\omega_{1^-\,\alpha}^{\#1}$	$\omega_{1^-\,\alpha}^{\#2}$	$f_{1^-\,\alpha}^{\#1}$	$f_{1^-\,\alpha}^{\#2}$
$\omega_{1^+}^{\#1}\,\dagger^{\alpha\beta}$	$k^2\,r_5-\frac{t_1}{2}$	$-\frac{t_1}{\sqrt{2}}$	$-\frac{ikt_1}{\sqrt{2}}$	0	0	0	0
$\omega_{1^+}^{\#2}\,\dagger^{\alpha\beta}$	$-\frac{t_1}{\sqrt{2}}$	0	0	0	0	0	0
$f_{1^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{ikt_1}{\sqrt{2}}$	0	0	0	0	0	0
$\omega_{1^-}^{\#1}\,\dagger^{\alpha}$	0	0	0	$\frac{1}{6}\,(6\,k^2\,r_5+t_1+4\,t_3)$	$\frac{t_1-2t_3}{3\sqrt{2}}$	0	$\frac{1}{3}\,i\,k\,(t_1-2\,t_3)$
$\omega_{1^-}^{\#2}\,\dagger^{\alpha}$	0	0	0	$\frac{t_1-2t_3}{3\sqrt{2}}$	$\frac{t_1+t_3}{3}$	0	$\frac{1}{3}\,i\,\sqrt{2}\,k\,(t_1+t_3)$
$f_{1^-}^{\#1}\,\dagger^{\alpha}$	0	0	0	0	0	0	0
$f_{1^-}^{\#2}\,\dagger^{\alpha}$	0	0	0	$-\frac{1}{3}\,i\,k\,(t_1-2\,t_3)$	$-\frac{1}{3}\,i\,\sqrt{2}\,k\,(t_1+t_3)$	0	$\frac{2}{3}\,k^2\,(t_1+t_3)$

	$\omega_{0^+}^{\#1}$	$f_{0^+}^{\#1}$	$f_{0^+}^{\#2}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1}\,\dagger$	t_3	$-i\,\sqrt{2}\,k\,t_3$	0	0
$f_{0^+}^{\#1}\,\dagger$	$i\,\sqrt{2}\,k\,t_3$	$2\,k^2\,t_3$	0	0
$f_{0^+}^{\#2}\,\dagger$	0	0	0	0
$\omega_{0^-}^{\#1}\,\dagger$	0	0	0	$k^2\,r_2-t_1$

	$\omega_{2^+\,\alpha\beta}^{\#1}$	$f_{2^+\,\alpha\beta}^{\#1}$	$\omega_{2^-\,\alpha\beta\chi}^{\#1}$
$\omega_{2^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{t_1}{2}$	$-\frac{ikt_1}{\sqrt{2}}$	0
$f_{2^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{ikt_1}{\sqrt{2}}$	$k^2\,t_1$	0
$\omega_{2^-}^{\#1}\,\dagger^{\alpha\beta\chi}$	0	0	$\frac{t_1}{2}$

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
$\tau_{2^+}^{\#1\,\alpha\beta} - 2\,i\,k\,\sigma_{2^+}^{\#1\,\alpha\beta} == 0$	5
Total #:	16

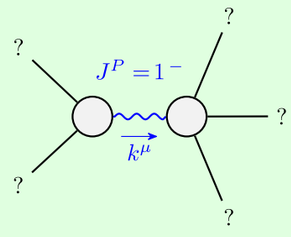
	$\sigma_{0^+}^{\#1}$	$\tau_{0^+}^{\#1}$	$\tau_{0^+}^{\#2}$	$\sigma_{0^-}^{\#1}$
$\sigma_{0^+}^{\#1}\,\dagger$	$\frac{1}{(1+2k^2)^2\,t_3}$	$-\frac{i\sqrt{2}\,k}{(1+2k^2)^2\,t_3}$	0	0
$\tau_{0^+}^{\#1}\,\dagger$	$\frac{i\sqrt{2}\,k}{(1+2k^2)^2\,t_3}$	$\frac{2k^2}{(1+2k^2)^2\,t_3}$	0	0
$\tau_{0^+}^{\#2}\,\dagger$	0	0	0	0
$\sigma_{0^-}^{\#1}\,\dagger$	0	0	0	$\frac{1}{k^2\,r_2-t_1}$

	$\tau_{2^+\,\alpha\beta}^{\#1}$	$\sigma_{2^-\,\alpha\beta\chi}^{\#1}$
$\sigma_{2^+\,\alpha\beta}^{\#1}\,\dagger^{\alpha\beta}$	$-\frac{2\,i\,\sqrt{2}\,k}{(1+2k^2)^2\,t_1}$	0
$\tau_{2^+\,\alpha\beta}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{4k^2}{(1+2k^2)^2\,t_1}$	0
$\sigma_{2^-\,\alpha\beta\chi}^{\#1}\,\dagger^{\alpha\beta\chi}$	0	$\frac{2}{t_1}$

Lagrangian density

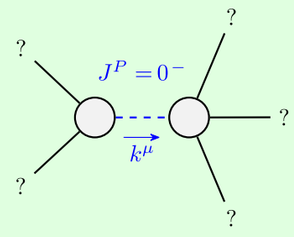
$$
\begin{aligned}
&-\tfrac{1}{3}\,t_1\,\omega_{\prime}^{\alpha\prime}\,\omega_{\kappa\alpha}^{\ \ \kappa}+\tfrac{2}{3}\,t_3\,\omega_{\prime}^{\alpha\prime}\,\omega_{\kappa\alpha}^{\ \ \kappa}-t_1\,\omega_{\prime}^{\ \kappa\prime}\,\omega_{\kappa\lambda}^{\ \ \lambda}-r_5\,\partial_{\prime}\omega^{\kappa\lambda\ \prime}\,\partial^{\prime}\omega_{\kappa\ \lambda}^{\ \alpha}+\\
&\tfrac{2}{3}\,r_2\,\partial^{\beta}\omega^{\theta\alpha}{}_{\kappa}\,\partial_{\theta}\omega_{\alpha\beta}^{\ \ \kappa}-\tfrac{1}{3}\,r_2\,\partial_{\theta}\omega_{\alpha\beta}^{\ \ \kappa}\,\partial_{\kappa}\omega^{\alpha\beta\theta}-\tfrac{2}{3}\,r_2\,\partial_{\theta}\omega_{\alpha\beta}^{\ \ \kappa}\,\partial_{\kappa}\omega^{\theta\alpha\beta}-\\
&r_5\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\theta\kappa\lambda}+r_5\,\partial_{\theta}\omega_{\lambda\ \alpha}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\theta\kappa\lambda}-r_5\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta}-\\
&2\,r_5\,\partial_{\theta}\omega_{\lambda\ \alpha}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta}-\tfrac{1}{2}\,t_1\,\partial^{\alpha}f_{\theta\kappa}\,\partial^{\kappa}f_{\alpha}^{\ \ \theta}-\tfrac{1}{2}\,t_1\,\partial^{\alpha}f_{\kappa\theta}\,\partial^{\kappa}f_{\alpha}^{\ \ \theta}-\\
&\tfrac{1}{2}\,t_1\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\,\partial^{\kappa}f_{\alpha\lambda}^{\prime}+\tfrac{1}{3}\,t_1\,\omega_{\kappa\alpha}^{\ \ \alpha}\,\partial^{\kappa}f_{\prime}^{\prime}-\tfrac{2}{3}\,t_3\,\omega_{\kappa\alpha}^{\ \ \alpha}\,\partial^{\kappa}f_{\prime}^{\prime}-\\
&\tfrac{2}{3}\,t_3\,\omega_{\kappa\lambda}^{\ \ \lambda}\,\partial^{\kappa}f_{\prime}^{\prime}+\tfrac{2}{3}\,t_1\,\partial^{\alpha}f_{\kappa\alpha}\,\partial^{\kappa}f_{\prime}^{\prime}-\tfrac{4}{3}\,t_3\,\partial^{\alpha}f_{\kappa\alpha}\,\partial^{\kappa}f_{\prime}^{\prime}+\\
&\tfrac{2}{3}\,t_3\,\partial_{\kappa}f^{\lambda}{}_{\lambda}\,\partial^{\kappa}f_{\prime}^{\prime}+2\,t_1\,\omega_{\prime\kappa\theta}\,\partial^{\kappa}f^{\prime\theta}-\tfrac{1}{3}\,t_1\,\omega_{\prime\alpha}^{\ \ \alpha}\,\partial^{\kappa}f_{\ \kappa}^{\prime}-\\
&\tfrac{1}{3}\,t_1\,\omega_{\prime\lambda}^{\ \ \lambda}\,\partial^{\kappa}f_{\ \kappa}^{\prime}+\tfrac{2}{3}\,t_3\,\omega_{\prime\lambda}^{\ \ \lambda}\,\partial^{\kappa}f_{\ \kappa}^{\prime}+\tfrac{1}{2}\,t_1\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\,\partial^{\kappa}f_{\lambda\alpha}+\\
&\tfrac{1}{2}\,t_1\,\partial_{\kappa}f^{\lambda}{}_{\theta}\,\partial^{\kappa}f_{\lambda}^{\ \ \theta}-\tfrac{1}{3}\,t_1\,\partial^{\alpha}f^{\lambda}{}_{\alpha}\,\partial^{\kappa}f_{\lambda\kappa}+\tfrac{2}{3}\,t_3\,\partial^{\alpha}f^{\lambda}{}_{\alpha}\,\partial^{\kappa}f_{\lambda\kappa}+\\
&\tfrac{1}{3}\,r_2\,\partial_{\kappa}\omega^{\alpha\beta\theta}\,\partial^{\kappa}\omega_{\alpha\beta\theta}+\tfrac{2}{3}\,r_2\,\partial_{\kappa}\omega^{\theta\alpha\beta}\,\partial^{\kappa}\omega_{\alpha\beta\theta}-\tfrac{2}{3}\,r_2\,\partial^{\beta}\omega_{\ \prime}^{\alpha\lambda}\,\partial_{\lambda}\omega_{\alpha\beta}^{\ \ \prime}+\\
&\tfrac{2}{3}\,r_2\,\partial^{\beta}\omega_{\prime}^{\lambda\alpha}\,\partial_{\lambda}\omega_{\alpha\beta}^{\ \ \prime}+r_5\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}-r_5\,\partial_{\theta}\omega_{\lambda\ \alpha}^{\ \ \alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}
\end{aligned}
$$

Added source term: $f^{\alpha\beta}\,\tau_{\alpha\beta}+\omega^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi}$



Massive particle

Pole residue:	$\frac{6t_1t_3\,(t_1+t_3)-3r_5\,(t_1^{\,2}+2t_3^{\,2})}{2r_5\,(t_1+t_3)\,(-3t_1t_3+r_5\,(t_1+t_3))} > 0$
Polarisations:	3
Square mass:	$-\frac{3t_1t_3}{2r_5t_1+2r_5t_3} > 0$
Spin:	1
Parity:	Odd



Massive particle

Pole residue:	$-\frac{1}{r_2} > 0$
Polarisations:	1
Square mass:	$\frac{t_1}{r_2} > 0$
Spin:	0
Parity:	Odd

Unitarity conditions

$r_2 < 0$ && $r_5 < 0$ && $t_1 < 0$ && $0 < t_3 < -t_1$

(No massless particles)