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

	$\omega_{2^+}^{\#1}{}_{\alpha\beta}$	$f_{2^+}^{\#1}{}_{\alpha\beta}$	$\omega_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\omega_{2^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{t_1}{2}$	$-\frac{i\,k\,t_1}{\sqrt{2}}$	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	1
$\sigma_{0^-}^{\#1} == 0$	1
$\tau_{0^+}^{\#2} == 0$	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
$\tau_{1^+}^{\#1\,\alpha\beta} - 2\,i\,k\,\sigma_{1^+}^{\#1\,\alpha\beta} == 0$	3
$2\,\sigma_{1^+}^{\#1\,\alpha\beta} + \sigma_{1^+}^{\#2\,\alpha\beta} == 0$	3
$\tau_{2^+}^{\#1\,\alpha\beta} - 2\,i\,k\,\sigma_{2^+}^{\#1\,\alpha\beta} == 0$	5
Total #:	20

	$\sigma_{2^+}^{\#1}{}_{\alpha\beta}$	$\tau_{2^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\sigma_{2^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{2}{(1+2\,k^2)^2\,t_1}$	$-\frac{2\,i\,\sqrt{2}\,k}{(1+2\,k^2)^2\,t_1}$	0
$\tau_{2^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{2\,i\,\sqrt{2}\,k}{(1+2\,k^2)^2\,t_1}$	$\frac{4\,k^2}{(1+2\,k^2)^2\,t_1}$	0
$\sigma_{2^-}^{\#1}\,\dagger^{\alpha\beta\chi}$	0	0	$\frac{2}{2\,k^2\,r_1+t_1}$

	$\omega_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^+}^{\#2}{}_{\alpha\beta}$	$f_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^-}^{\#1}{}_{\alpha}$	$\omega_{1^-}^{\#2}{}_{\alpha}$	$f_{1^-}^{\#1}{}_{\alpha}$	$f_{1^-}^{\#2}{}_{\alpha}$
$\omega_{1^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{t_1}{6}$	$-\frac{t_1}{3\sqrt{2}}$	$-\frac{i\,k\,t_1}{3\sqrt{2}}$	0	0	0	0
$\omega_{1^+}^{\#2}\,\dagger^{\alpha\beta}$	$-\frac{t_1}{3\sqrt{2}}$	$\frac{t_1}{3}$	$\frac{i\,k\,t_1}{3}$	0	0	0	0
$f_{1^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{i\,k\,t_1}{3\sqrt{2}}$	$-\frac{i\,k\,t_1}{3}$	$\frac{k^2\,t_1}{3}$	0	0	0	0
$\omega_{1^-}^{\#1}\,\dagger^{\alpha}$	0	0	0	$-k^2\,r_1-\frac{t_1}{2}$	$\frac{t_1}{\sqrt{2}}$	0	$-i\,k\,t_1$
$\omega_{1^-}^{\#2}\,\dagger^{\alpha}$	0	0	0	$\frac{t_1}{\sqrt{2}}$	0	0	0
$f_{1^-}^{\#1}\,\dagger^{\alpha}$	0	0	0	0	0	0	0
$f_{1^-}^{\#2}\,\dagger^{\alpha}$	0	0	0	$-i\,k\,t_1$	0	0	0

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

	$\tau_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^+}^{\#2}{}_{\alpha\beta}$	$\sigma_{1^-}^{\#2}{}_{\alpha}$	$\tau_{1^-}^{\#1}{}_{\alpha}$	$\tau_{1^-}^{\#2}{}_{\alpha}$
$\sigma_{1^+}^{\#1}\,\dagger^{\alpha\beta}$	$-\frac{6\,i\,\sqrt{2}\,k}{(3+2\,k^2)^2\,t_1}$	$-\frac{6\,\sqrt{2}}{(3+2\,k^2)^2\,t_1}$	$\frac{\sqrt{2}}{t_1+2\,k^2\,t_1}$	0	$\frac{2\,i\,k}{t_1+2\,k^2\,t_1}$
$\sigma_{1^+}^{\#2}\,\dagger^{\alpha\beta}$	$\frac{12\,i\,k}{(3+2\,k^2)^2\,t_1}$	$\frac{12}{(3+2\,k^2)^2\,t_1}$	$\frac{2\,k^2\,r_1+t_1}{(t_1+2\,k^2\,t_1)^2}$	0	$\frac{i\,\sqrt{2}\,k\,(2\,k^2\,r_1+t_1)}{(t_1+2\,k^2\,t_1)^2}$
$\tau_{1^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{12\,k^2}{(3+2\,k^2)^2\,t_1}$	$-\frac{12\,i\,k}{(3+2\,k^2)^2\,t_1}$	0	0	$\frac{2\,k^2\,(2\,k^2\,r_1+t_1)}{(t_1+2\,k^2\,t_1)^2}$
$\sigma_{1^-}^{\#1}\,\dagger^{\alpha}$	0	0	0	0	0
$\sigma_{1^-}^{\#2}\,\dagger^{\alpha}$	0	0	0	0	0
$\tau_{1^-}^{\#1}\,\dagger^{\alpha}$	0	0	0	0	0
$\tau_{1^-}^{\#2}\,\dagger^{\alpha}$	0	0	0	0	0

Lagrangian density

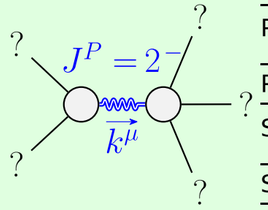
$$
\begin{aligned}
&-t_1\,\omega_{\ \ \ \iota}^{\alpha\prime}\,\omega_{\ \ \ \kappa\alpha}^{\kappa}-\tfrac{1}{3}\,t_1\,\omega_{\ \ \ \iota}^{\kappa\lambda\prime}\,\omega_{\ \ \ \kappa\lambda}^{\prime}+\tfrac{1}{3}\,t_1\,\omega_{\ \ \ \iota}^{\kappa\lambda}\,\omega_{\ \ \ \kappa\lambda}^{\prime}+\\
&2\,r_1\,\partial_\iota\omega^{\kappa\lambda}{}_{\kappa}\,\partial^{\prime}\omega_{\ \ \ \lambda\ \alpha}^{\alpha}-\tfrac{2}{3}\,r_1\,\partial^{\beta}\omega^{\theta\alpha}{}_{\kappa}\,\partial_\theta\omega_{\ \ \ \alpha\beta}^{\kappa}-\tfrac{2}{3}\,r_1\,\partial_\theta\omega^{\theta\alpha}{}_{\kappa}\,\partial^{\beta}\omega_{\ \ \ \alpha\beta}^{\kappa}+\\
&\tfrac{2}{3}\,r_1\,\partial_\kappa\omega^{\kappa\lambda}{}_{\theta}\,\partial^{\alpha}\omega_{\ \ \ \lambda\ \alpha}^{\theta}-2\,r_1\,\partial_\theta\omega_{\ \ \ \lambda\ \alpha}^{\alpha}\,\partial_\kappa\omega^{\theta\kappa\lambda}+\\
&2\,r_1\,\partial_\alpha\omega_{\ \ \ \lambda\ \theta}^{\alpha}\,\partial_\kappa\omega^{\kappa\lambda\theta}-\tfrac{1}{3}\,t_1\,\partial^{\alpha}f_{\theta\kappa}\,\partial^{\kappa}f_{\ \ \alpha}^{\theta}-\\
&\tfrac{2}{3}\,t_1\,\partial^{\alpha}f_{\kappa\theta}\,\partial^{\kappa}f_{\ \ \alpha}^{\theta}-\tfrac{1}{3}\,t_1\,\partial^{\alpha}f^{\kappa\lambda}\,\partial^{\kappa}f_{\alpha\lambda}+t_1\,\omega_{\kappa\alpha}^{\ \ \ \alpha}\,\partial^{\kappa}f^{\prime}{}_{\iota}+\\
&t_1\,\omega_{\kappa\lambda}^{\ \ \ \lambda}\,\partial^{\kappa}f^{\prime}{}_{\iota}+2\,t_1\,\partial^{\alpha}f_{\kappa\alpha}\,\partial^{\kappa}f^{\prime}{}_{\iota}-t_1\,\partial_\kappa f^{\kappa\lambda}\,\partial_\iota f^{\prime}{}_{\lambda}+\tfrac{1}{3}\,t_1\,\omega_{\iota\theta\kappa}\,\partial^{\kappa}f^{\prime\theta}+\\
&\tfrac{4}{3}\,t_1\,\omega_{\iota\kappa\theta}\,\partial^{\kappa}f^{\prime\theta}-\tfrac{1}{3}\,t_1\,\omega_{\theta\iota\kappa}\,\partial^{\kappa}f^{\prime\theta}+\tfrac{2}{3}\,t_1\,\omega_{\theta\kappa\iota}\,\partial^{\kappa}f^{\prime\theta}-\\
&t_1\,\omega_{\iota\alpha}^{\ \ \ \alpha}\,\partial^{\kappa}f^{\prime}{}_{\kappa}-t_1\,\omega_{\iota\lambda}^{\ \ \ \lambda}\,\partial^{\kappa}f^{\prime}{}_{\kappa}+\tfrac{1}{3}\,t_1\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\,\partial^{\kappa}f_{\lambda\alpha}+\\
&\tfrac{1}{3}\,t_1\,\partial_\kappa f_{\ \ \theta}^{\lambda}\,\partial^{\kappa}f_{\ \ \lambda}^{\theta}+\tfrac{2}{3}\,t_1\,\partial_\kappa f^{\lambda}{}_{\theta}\,\partial^{\kappa}f_{\ \ \lambda}^{\theta}-t_1\,\partial^{\alpha}f^{\lambda}{}_{\alpha}\,\partial^{\kappa}f_{\lambda\kappa}+\\
&\tfrac{2}{3}\,r_1\,\partial_\kappa\omega^{\alpha\beta\theta}\,\partial^{\kappa}\omega_{\alpha\beta\theta}+\tfrac{2}{3}\,r_1\,\partial^{\beta}\omega_{\ \ \ \iota}^{\alpha\lambda}\,\partial_\lambda\omega_{\alpha\beta}^{\ \ \ \prime}-\\
&\tfrac{2}{3}\,r_1\,\partial_\kappa\omega^{\alpha\beta\theta}\,\partial^{\kappa}\omega_{\alpha\beta\theta}-\tfrac{2}{3}\,r_1\,\partial_\kappa\omega^{\theta\alpha\beta}\,\partial^{\kappa}\omega_{\ \ \ \iota}^{\ \ \ \prime}-\\
&\tfrac{8}{3}\,r_1\,\partial^{\beta}\omega_{\ \ \ \iota}^{\lambda\alpha}\,\partial_\lambda\omega_{\alpha\beta}^{\ \ \ \prime}-2\,r_1\,\partial_\alpha\omega_{\ \ \ \lambda\ \theta}^{\alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}+2\,r_1\,\partial_\theta\omega_{\ \ \ \lambda\ \alpha}^{\alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}
\end{aligned}
$$

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

Unitarity conditions

$$t_1 < 0 \;\&\&\; r_1 > 0$$

(No massless particles)



Massive particle	
Pole residue:	$-\frac{1}{r_1} > 0$
Polarisations:	5
Square mass:	$-\frac{t_1}{2\,r_1} > 0$
Spin:	2
Parity:	Odd