	$\omega_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^+}^{\#2}{}_{\alpha\beta}$	$f_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^-}^{\#1}{}_{\alpha}$	$\omega_{1^-}^{\#2}{}_{\alpha}$	$f_{1^-}^{\#1}{}_{\alpha}$	$f_{1^-}^{\#2}{}_{\alpha}$
$\omega_{1^+}^{\#1}{}^{\alpha\beta}$	$k^2\,(2\,r_3+r_5)-\frac{t_1}{2}$	$-\frac{t_1}{\sqrt{2}}$	$-\frac{i\,k\,t_1}{\sqrt{2}}$	0	0	0	0
$\omega_{1^+}^{\#2}{}^{\alpha\beta}$	$-\frac{t_1}{\sqrt{2}}$	0	0	0	0	0	0
$f_{1^+}^{\#1}{}^{\alpha\beta}$	$\frac{i\,k\,t_1}{\sqrt{2}}$	0	0	0	0	0	0
$\omega_{1^-}^{\#1}{}^{\alpha}$	0	0	0	$k^2\,(-r_1+2\,r_3+r_5)+\frac{t_1}{6}$	$\frac{t_1}{3\sqrt{2}}$	0	$\frac{i\,k\,t_1}{3}$
$\omega_{1^-}^{\#2}{}^{\alpha}$	0	0	0	$\frac{t_1}{3\sqrt{2}}$	$\frac{t_1}{3}$	0	$\frac{1}{3}\,i\,\sqrt{2}\,k\,t_1$
$f_{1^-}^{\#1}{}^{\alpha}$	0	0	0	0	0	0	0
$f_{1^-}^{\#2}{}^{\alpha}$	0	0	0	$-\frac{1}{3}\,i\,k\,t_1$	$-\frac{1}{3}\,i\,\sqrt{2}\,k\,t_1$	0	$\frac{2\,k^2\,t_1}{3}$

	$\sigma_{0^+}^{\#1}$	$\tau_{0^+}^{\#1}$	$\tau_{0^+}^{\#2}$	$\sigma_{0^-}^{\#1}$
$\sigma_{0^+}^{\#1}{}^{\dagger}$	$\frac{1}{6\,k^2\,(-r_1+r_3)}$	0	0	0
$\tau_{0^+}^{\#1}{}^{\dagger}$	0	0	0	0
$\tau_{0^+}^{\#2}{}^{\dagger}$	0	0	0	0
$\sigma_{0^-}^{\#1}{}^{\dagger}$	0	0	0	$-\frac{1}{t_1}$

	$\omega_{0^+}^{\#1}$	$f_{0^+}^{\#1}$	$f_{0^+}^{\#2}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1}{}^{\dagger}$	$6\,k^2\,(-r_1+r_3)$	0	0	0
$f_{0^+}^{\#1}{}^{\dagger}$	0	0	0	0
$f_{0^+}^{\#2}{}^{\dagger}$	0	0	0	0
$\omega_{0^-}^{\#1}{}^{\dagger}$	0	0	0	$-t_1$

	$\sigma_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^+}^{\#2}{}_{\alpha\beta}$	$\tau_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^-}^{\#1}{}_{\alpha}$	$\sigma_{1^-}^{\#2}{}_{\alpha}$	$\tau_{1^-}^{\#1}{}_{\alpha}$	$\tau_{1^-}^{\#2}{}_{\alpha}$
$\sigma_{1^+}^{\#1}{}^{\alpha\beta}$	0	$-\frac{\sqrt{2}}{t_1+k^2\,t_1}$	$-\frac{i\,\sqrt{2}\,k}{t_1+k^2\,t_1}$	0	0	0	0
$\sigma_{1^+}^{\#2}{}^{\alpha\beta}$	$-\frac{\sqrt{2}}{t_1+k^2\,t_1}$	$-\frac{2\,k^2\,(2\,r_3+r_5)+t_1}{(1+k^2)^2\,t_1^2}$	$-\frac{2\,i\,k^3\,(2\,r_3+r_5)+i\,k\,t_1}{(1+k^2)^2\,t_1^2}$	0	0	0	0
$\tau_{1^+}^{\#1}{}^{\alpha\beta}$	$\frac{i\,\sqrt{2}\,k}{t_1+k^2\,t_1}$	$\frac{i\,(2\,k^3\,(2\,r_3+r_5)-k\,t_1)}{(1+k^2)^2\,t_1^2}$	$-\frac{2\,k^4\,(2\,r_3+r_5)+k^2\,t_1}{(1+k^2)^2\,t_1^2}$	0	0	0	0
$\sigma_{1^-}^{\#1}{}^{\alpha}$	0	$\frac{i\,(6\,k^2\,(r_1-2\,r_3-r_5)-t_1)}{\sqrt{2}\,k\,(1+2\,k^2)^2\,(r_1-2\,r_3-r_5)\,t_1}$	$-\frac{1}{k\,(1+2\,k^2)\,(r_1-2\,r_3-r_5)}$	$\frac{1}{k^2\,(-r_1+2\,r_3+r_5)}$	$\frac{1}{\sqrt{2}\,(k^2+2\,k^4)\,(r_1-2\,r_3-r_5)}$	$\frac{i}{k\,(1+2\,k^2)\,(r_1-2\,r_3-r_5)}$	$\frac{1}{k\,(1+2\,k^2)\,(-r_1+2\,r_3+r_5)}$
$\sigma_{1^-}^{\#2}{}^{\alpha}$	0	$\frac{1}{2\,(k+2\,k^3)^2}\left(\frac{1}{\frac{-r_1+2\,r_3+r_5}{6\,k^2}+\frac{t_1}{6\,k^2}}\right)$	$-\frac{i\,(6\,k^2\,(r_1-2\,r_3-r_5)-t_1)}{\sqrt{2}\,k\,(1+2\,k^2)^2\,(r_1-2\,r_3-r_5)\,t_1}$	0	$\frac{1}{\sqrt{2}\,(k^2+2\,k^4)\,(r_1-2\,r_3-r_5)}$	$\frac{1}{\sqrt{2}\,k\,(1+2\,k^2)\,(r_1-2\,r_3-r_5)}$	$\frac{1}{\frac{-r_1+2\,r_3+r_5}{6\,k^2}+\frac{t_1}{6\,k^2}}$
$\tau_{1^-}^{\#1}{}^{\alpha}$	0	$\frac{i\,(2\,k^3\,(2\,r_3+r_5)-k\,t_1)}{(1+k^2)^2\,t_1^2}$	$\frac{i\,\sqrt{2}\,k}{t_1+k^2\,t_1}$	0	0	0	0
$\tau_{1^-}^{\#2}{}^{\alpha}$	0	$\frac{i\,(6\,k^2\,(r_1-2\,r_3-r_5)-t_1)}{\sqrt{2}\,k\,(1+2\,k^2)^2\,(r_1-2\,r_3-r_5)\,t_1}$	$-\frac{1}{k\,(1+2\,k^2)\,(r_1-2\,r_3-r_5)}$	$\frac{1}{k^2\,(-r_1+2\,r_3+r_5)}$	$\frac{1}{\sqrt{2}\,(k^2+2\,k^4)\,(r_1-2\,r_3-r_5)}$	$\frac{i}{k\,(1+2\,k^2)\,(-r_1+2\,r_3+r_5)}$	$\frac{1}{k\,(1+2\,k^2)\,(r_1-2\,r_3-r_5)}$

	$\sigma_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\sigma_{2^+}^{\#1}{}^{\alpha\beta}$	0
$\tau_{2^+}^{\#1}{}^{\alpha\beta}$	0
$\sigma_{2^-}^{\#1}{}^{\alpha\beta\chi}$	$\frac{2}{2\,k^2\,r_1+t_1}$

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

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

	$\omega_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\omega_{2^+}^{\#1}{}^{\alpha\beta}$	0
$f_{2^+}^{\#1}{}^{\alpha\beta}$	0
$\omega_{2^-}^{\#1}{}^{\alpha\beta\chi}$	$k^2\,r_1+\frac{t_1}{2}$

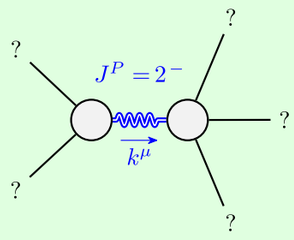
	$\omega_{2^+}^{\#1}{}_{\alpha\beta}$	$f_{2^+}^{\#1}{}_{\alpha\beta}$
$\omega_{2^+}^{\#1}{}^{\alpha\beta}$	$\frac{t_1}{2}$	$-\frac{i\,k\,t_1}{\sqrt{2}}$
$f_{2^+}^{\#1}{}^{\alpha\beta}$	$\frac{i\,k\,t_1}{\sqrt{2}}$	$k^2\,t_1$
$\omega_{2^-}^{\#1}{}^{\alpha\beta\chi}$	0	0

Lagrangian density

$$
\begin{aligned}
&-\frac{1}{3}\,t_1\;\omega_{\iota}{}^{\alpha\iota}{}_{\kappa\alpha}{}^{\kappa}-t_1\;\omega_{\iota}{}^{\kappa\lambda}{}_{\kappa\lambda}{}^{\prime}+2\,r_1\,\partial_{\iota}\omega^{\kappa\lambda}{}_{\kappa}\partial^{\prime}\omega_{\lambda}{}^{\alpha}{}_{\alpha}-2\,r_3\,\partial_{\iota}\omega^{\kappa\lambda}{}_{\kappa}\partial^{\prime}\omega_{\lambda}{}^{\alpha}{}_{\alpha}-\\
&r_5\,\partial_{\iota}\omega^{\kappa\lambda}{}_{\kappa}\partial^{\prime}\omega_{\lambda}{}^{\alpha}{}_{\alpha}-\frac{2}{3}\,r_1\,\partial^{\beta}\omega^{\theta\alpha}{}_{\kappa}\partial_{\theta}\omega_{\alpha\beta}{}^{\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\alpha\beta}-2\,r_1\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial_{\kappa}\omega^{\theta\kappa\lambda}+2\,r_3\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial_{\kappa}\omega^{\theta\kappa\lambda}-\\
&r_5\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial_{\kappa}\omega^{\theta\kappa\lambda}+2\,r_1\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega^{\theta\kappa\lambda}-2\,r_3\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega^{\theta\kappa\lambda}+\\
&r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega^{\theta\kappa\lambda}+2\,r_1\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial_{\kappa}\omega^{\kappa\lambda\theta}-2\,r_3\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial_{\kappa}\omega^{\kappa\lambda\theta}-\\
&r_5\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial_{\kappa}\omega^{\kappa\lambda\theta}-4\,r_1\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega^{\kappa\lambda\theta}+4\,r_3\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega^{\kappa\lambda\theta}+\\
&2\,r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial_{\kappa}\omega^{\kappa\lambda\theta}-\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}+\frac{1}{3}\,t_1\;\omega_{\kappa\alpha}{}^{\alpha}\,\partial^{\kappa}f^{\prime}{}_{\iota}+\frac{1}{3}\,t_1\;\omega_{\kappa\lambda}{}^{\lambda}\,\partial^{\kappa}f^{\prime}{}_{\iota}+\frac{2}{3}\,t_1\,\partial^{\alpha}f_{\kappa\alpha}\partial^{\kappa}f^{\prime}{}_{\iota}-\\
&\frac{1}{3}\,t_1\,\partial_{\kappa}f^{\lambda}{}_{\lambda}\partial^{\kappa}f^{\prime}{}_{\iota}+2\,t_1\;\omega_{\iota\kappa\theta}\,\partial^{\kappa}f^{\prime\theta}-\frac{1}{3}\,t_1\;\omega_{\iota\alpha}{}^{\alpha}\,\partial^{\kappa}f^{\prime}{}_{\kappa}-\frac{1}{3}\,t_1\;\omega_{\iota\lambda}{}^{\lambda}\,\partial^{\kappa}f^{\prime}{}_{\kappa}+\\
&\frac{1}{2}\,t_1\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\partial^{\kappa}f_{\lambda\alpha}+\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}+\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_{\iota}{}^{\alpha\lambda}\partial_{\lambda}\omega_{\alpha\beta}{}^{\prime}+\frac{4}{3}\,r_1\,\partial^{\beta}\omega_{\iota}{}^{\lambda\alpha}\partial_{\lambda}\omega_{\alpha\beta}{}^{\prime}-4\,r_3\,\partial^{\beta}\omega_{\iota}{}^{\lambda\alpha}\partial_{\lambda}\omega_{\alpha\beta}{}^{\prime}+\\
&2\,r_1\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}-2\,r_3\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}+r_5\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}-\\
&2\,r_1\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}+2\,r_3\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}-r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}
\end{aligned}
$$

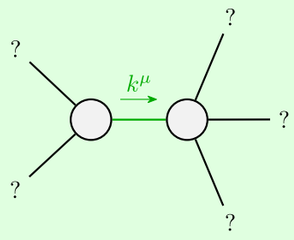
Added source term: $f^{\alpha\beta}\;\tau_{\alpha\beta}+\omega^{\alpha\beta\chi}\;\sigma_{\alpha\beta\chi}$

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



Massive particle

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



Quadratic pole

Pole residue:	$\frac{1}{(r_1-2\,r_3-r_5)\,t_1^2}>0$
Polisarisations:	2

Unitarity conditions

$r_1<0\;\&\&\;r_5<r_1-2\,r_3\;\&\&\;t_1>0$