	$\sigma_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^+}^{\#2}{}_{\alpha\beta}$	$\tau_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^-}^{\#1}{}_{\alpha}$	$\sigma_{1^-}^{\#2}{}_{\alpha}$	$\tau_{1^-}^{\#1}{}_{\alpha}$	$\tau_{1^-}^{\#2}{}_{\alpha}$
$\sigma_{1^+}^{\#1}\dagger^{\alpha\beta}$	$\frac{1}{k^2\,(2\,r_3+r_5)}$	$-\frac{\sqrt{2}}{k^2\,(1+k^2)\,(2\,r_3+r_5)}$	$-\frac{i\,\sqrt{2}}{k\,(1+k^2)\,(2\,r_3+r_5)}$	0	0	0	0
$\sigma_{1^+}^{\#2}\dagger^{\alpha\beta}$	$-\frac{\sqrt{2}}{k^2\,(1+k^2)\,(2\,r_3+r_5)}$	$\frac{3\,k^2\,(2\,r_3+r_5)+2\,t_2}{(k+k^3)^2\,(2\,r_3+r_5)\,t_2}$	$\frac{i\,(3\,k^2\,(2\,r_3+r_5)+2\,t_2)}{k\,(1+k^2)^2\,(2\,r_3+r_5)\,t_2}$	0	0	0	0
$\tau_{1^+}^{\#1}\dagger^{\alpha\beta}$	$\frac{i\,\sqrt{2}}{k\,(1+k^2)\,(2\,r_3+r_5)}$	$-\frac{i\,(3\,k^2\,(2\,r_3+r_5)+2\,t_2)}{k\,(1+k^2)^2\,(2\,r_3+r_5)\,t_2}$	$\frac{3\,k^2\,(2\,r_3+r_5)+2\,t_2}{(1+k^2)^2\,(2\,r_3+r_5)\,t_2}$	0	0	0	0
$\sigma_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	$\frac{2}{k^2\,(r_3+2\,r_5)}$	$\frac{2\,\sqrt{2}}{k^2\,(1+2\,k^2)\,(r_3+2\,r_5)}$	0	$\frac{4\,i}{k\,(1+2\,k^2)\,(r_3+2\,r_5)}$
$\sigma_{1^-}^{\#2}\dagger^{\alpha}$	0	0	0	$\frac{2\,\sqrt{2}}{k^2\,(1+2\,k^2)\,(r_3+2\,r_5)}$	$\frac{3\,k^2\,(r_3+2\,r_5)+4\,t_3}{(k+2\,k^3)^2\,(r_3+2\,r_5)\,t_3}$	0	$\frac{i\,\sqrt{2}\,(3\,k^2\,(r_3+2\,r_5)+4\,t_3)}{k\,(1+2\,k^2)^2\,(r_3+2\,r_5)\,t_3}$
$\tau_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	0	0	0	0
$\tau_{1^-}^{\#2}\dagger^{\alpha}$	0	0	0	$-\frac{4\,i}{k\,(1+2\,k^2)\,(r_3+2\,r_5)}$	$-\frac{i\,\sqrt{2}\,(3\,k^2\,(r_3+2\,r_5)+4\,t_3)}{k\,(1+2\,k^2)^2\,(r_3+2\,r_5)\,t_3}$	0	$\frac{6\,k^2\,(r_3+2\,r_5)+8\,t_3}{(1+2\,k^2)^2\,(r_3+2\,r_5)\,t_3}$

	$\omega_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^+}^{\#2}{}_{\alpha\beta}$	$f_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^-}^{\#1}{}_{\alpha}$	$\omega_{1^-}^{\#2}{}_{\alpha}$	$f_{1^-}^{\#1}{}_{\alpha}$	$f_{1^-}^{\#2}{}_{\alpha}$
$\omega_{1^+}^{\#1}\dagger^{\alpha\beta}$	$k^2\,(2\,r_3+r_5)+\frac{2\,t_2}{3}$	$\frac{\sqrt{2}\,t_2}{3}$	$\frac{1}{3}\,i\,\sqrt{2}\,k\,t_2$	0	0	0	0
$\omega_{1^+}^{\#2}\dagger^{\alpha\beta}$	$\frac{\sqrt{2}\,t_2}{3}$	$\frac{t_2}{3}$	$\frac{i\,k\,t_2}{3}$	0	0	0	0
$f_{1^+}^{\#1}\dagger^{\alpha\beta}$	$-\frac{1}{3}\,i\,\sqrt{2}\,k\,t_2$	$-\frac{1}{3}\,i\,k\,t_2$	$\frac{k^2\,t_2}{3}$	0	0	0	0
$\omega_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	$k^2\,(\frac{r_3}{2}+r_5)+\frac{2\,t_3}{3}$	$-\frac{\sqrt{2}\,t_3}{3}$	0	$-\frac{2}{3}\,i\,k\,t_3$
$\omega_{1^-}^{\#2}\dagger^{\alpha}$	0	0	0	$-\frac{\sqrt{2}\,t_3}{3}$	$\frac{t_3}{3}$	0	$\frac{1}{3}\,i\,\sqrt{2}\,k\,t_3$
$f_{1^-}^{\#1}\dagger^{\alpha}$	0	0	0	0	0	0	0
$f_{1^-}^{\#2}\dagger^{\alpha}$	0	0	0	$\frac{2\,i\,k\,t_3}{3}$	$-\frac{1}{3}\,i\,\sqrt{2}\,k\,t_3$	0	$\frac{2\,k^2\,t_3}{3}$

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
$\sigma_{2^-}^{\#1\,\alpha\beta\chi} == 0$	5
$\tau_{2^+}^{\#1\,\alpha\beta} == 0$	5
Total #:	21

Added source term:

$$f^{\alpha\beta}\,\tau_{\alpha\beta}+\omega^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi}$$

Lagrangian density

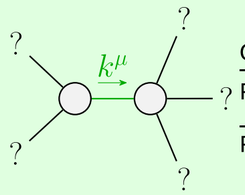
$$\begin{aligned}
&\tfrac{2}{3}\,t_3\,\omega_{\iota}^{\alpha\prime}\,\omega_{\kappa\alpha}^{\ \ \kappa}+\tfrac{2}{3}\,t_2\,\omega_{\iota}^{\ \kappa\lambda}\,\omega_{\kappa\lambda}^{\ \ \prime}+\\
&\tfrac{1}{3}\,t_2\,\omega_{\kappa\lambda}^{\ \ \prime}\,\omega_{\prime}^{\kappa\lambda}-\tfrac{1}{2}\,r_3\,\partial_{\prime}\omega_{\ \kappa}^{\kappa\lambda}\,\partial^{\prime}\omega_{\lambda\ \alpha}^{\ \ \alpha}-r_5\,\partial_{\prime}\omega_{\ \kappa}^{\kappa\lambda}\,\partial^{\prime}\omega_{\lambda\ \alpha}^{\ \ \alpha}+\\
&\tfrac{1}{2}\,r_3\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\theta\kappa\lambda}-r_5\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\theta\kappa\lambda}-\tfrac{1}{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}-\tfrac{1}{2}\,r_3\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta}-r_5\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta}+\\
&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}+\tfrac{1}{6}\,t_2\,\partial^{\alpha}f_{\theta\kappa}\,\partial^{\kappa}f_{\alpha\ \ \theta}^{\ \ \lambda}-\\
&\tfrac{1}{6}\,t_2\,\partial^{\alpha}f_{\kappa\theta}\,\partial^{\kappa}f_{\alpha\ \ \theta}^{\ \ \lambda}+\tfrac{1}{6}\,t_2\,\partial^{\alpha}f_{\ \kappa}^{\lambda}\,\partial^{\kappa}f_{\alpha\lambda}-\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{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}+\\
&\tfrac{1}{3}\,t_2\,\omega_{\prime\theta\kappa}\,\partial^{\kappa}f^{\prime\theta}-\tfrac{2}{3}\,t_2\,\omega_{\prime\kappa\theta}\,\partial^{\kappa}f^{\prime\theta}-\tfrac{1}{3}\,t_2\,\omega_{\theta\prime\kappa}\,\partial^{\kappa}f^{\prime\theta}+\\
&\tfrac{2}{3}\,t_2\,\omega_{\theta\kappa\prime}\,\partial^{\kappa}f^{\prime\theta}+\tfrac{2}{3}\,t_3\,\omega_{\prime\alpha}^{\ \ \alpha}\,\partial^{\kappa}f_{\ \kappa}^{\prime}+\tfrac{2}{3}\,t_3\,\omega_{\prime\lambda}^{\ \ \lambda}\,\partial^{\kappa}f_{\ \kappa}^{\prime}-\\
&\tfrac{1}{6}\,t_2\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\,\partial^{\kappa}f_{\lambda\alpha}-\tfrac{1}{6}\,t_2\,\partial_{\kappa}f^{\lambda}{}_{\theta}\,\partial^{\kappa}f_{\lambda\ \ \theta}^{\ \ \theta}+\tfrac{1}{6}\,t_2\,\partial_{\kappa}f^{\lambda}{}_{\theta}\,\partial^{\kappa}f_{\lambda\ \ \theta}^{\ \ \theta}+\\
&\tfrac{2}{3}\,t_3\,\partial^{\alpha}f^{\lambda}{}_{\alpha}\,\partial^{\kappa}f_{\lambda\kappa}-4\,r_3\,\partial^{\beta}\omega_{\prime}^{\lambda\alpha}\,\partial_{\lambda}\omega_{\alpha\beta}^{\ \ \prime}-\tfrac{1}{2}\,r_3\,\partial_{\alpha}\omega_{\lambda\ \theta}^{\ \ \alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}+\\
&\tfrac{1}{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}$$

	$\sigma_{0^+}^{\#1}$	$\tau_{0^+}^{\#1}$	$\tau_{0^+}^{\#2}$	$\sigma_{0^-}^{\#1}$
$\sigma_{0^+}^{\#1}\dagger$	$\frac{1}{(1+2\,k^2)^2\,t_3}$	$-\frac{i\,\sqrt{2}\,k}{(1+2\,k^2)^2\,t_3}$	0	0
$\tau_{0^+}^{\#1}\dagger$	$\frac{i\,\sqrt{2}\,k}{(1+2\,k^2)^2\,t_3}$	$\frac{2\,k^2}{(1+2\,k^2)^2\,t_3}$	0	0
$\tau_{0^+}^{\#2}\dagger$	0	0	0	0
$\sigma_{0^-}^{\#1}\dagger$	0	0	0	$\frac{1}{t_2}$

	$\sigma_{2^+}^{\#1}{}_{\alpha\beta}$	$\tau_{2^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\sigma_{2^+}^{\#1}\dagger^{\alpha\beta}$	$-\frac{2}{3\,k^2\,r_3}$	0	0
$\tau_{2^+}^{\#1}\dagger^{\alpha\beta}$	0	0	0
$\sigma_{2^-}^{\#1}\dagger^{\alpha\beta\chi}$	0	0	0

	$\omega_{0^+}^{\#1}$	$f_{0^+}^{\#1}$	$f_{0^+}^{\#2}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1}\dagger$	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	t_2

	$\omega_{2^+}^{\#1}{}_{\alpha\beta}$	$f_{2^+}^{\#1}{}_{\alpha\beta}$	$\omega_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\omega_{2^+}^{\#1}\dagger^{\alpha\beta}$	$-\frac{3\,k^2\,r_3}{2}$	0	0
$f_{2^+}^{\#1}\dagger^{\alpha\beta}$	0	0	0
$\omega_{2^-}^{\#1}\dagger^{\alpha\beta\chi}$	0	0	0



Quadratic pole

Pole residue:	$-\frac{1}{r_3\,(2\,r_3+r_5)\,(r_3+2\,r_5)\,p^2} > 0$
Polarisations:	2

Unitarity conditions

$$r_3 < 0\;\&\&\;(r_5 < -\tfrac{r_3}{2}\;||\;r_5 > -2\,r_3)\;||\;r_3 > 0\;\&\&\;-2\,r_3 < r_5 < -\tfrac{r_3}{2}$$

(No massive particles)