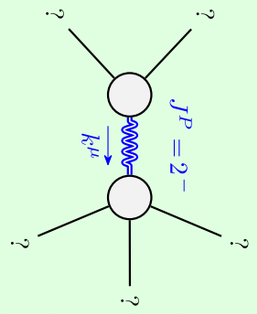
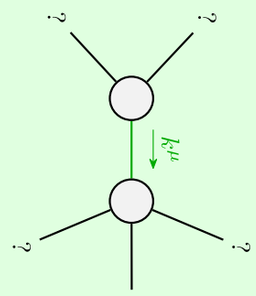


Massive particle	
Pole residue:	$-\frac{1}{r_1} > 0$
Polarisations:	5
Square mass:	$-\frac{t_1}{2\,r_1} > 0$
Spin:	2
Parity:	Odd

	$\sigma^{\#1}_{1^+\,\alpha\beta}$	$\sigma^{\#2}_{1^+\,\alpha\beta}$	$\tau^{\#1}_{1^+\,\alpha\beta}$	$\sigma^{\#1}_{1^-\,\alpha}$	$\sigma^{\#2}_{1^-\,\alpha}$	$\tau^{\#1}_{1^-\,\alpha}$	$\tau^{\#2}_{1^-\,\alpha}$
$\sigma^{\#1}_{1^+}\dagger^{\alpha\beta}$	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
$\sigma^{\#2}_{1^+}\dagger^{\alpha\beta}$	$-\frac{\sqrt{2}}{t_1+k^2\,t_1}$	$\frac{-2\,k^2\,(2\,r_1+r_5)+t_1}{(1+k^2)^2\,{t_1}^2}$	$\frac{-2\,i\,k^3\,(2\,r_1+r_5)+i\,k\,t_1}{(1+k^2)^2\,{t_1}^2}$	0	0	0	0
$\tau^{\#1}_{1^+}\dagger^{\alpha\beta}$	$\frac{i\,\sqrt{2}\,k}{t_1+k^2\,t_1}$	$\frac{i\,(2\,k^3\,(2\,r_1+r_5)-k\,t_1)}{(1+k^2)^2\,{t_1}^2}$	$\frac{-2\,k^4\,(2\,r_1+r_5)+k^2\,t_1}{(1+k^2)^2\,{t_1}^2}$	0	0	0	0
$\sigma^{\#1}_{1^-}\dagger^{\alpha}$	0	0	0	$\frac{1}{k^2\,(r_1+r_5)}$	$-\frac{1}{\sqrt{2}\,(k^2+2\,k^4)\,(r_1+r_5)}$	0	$-\frac{i}{k\,(1+2\,k^2)\,(r_1+r_5)}$
$\sigma^{\#2}_{1^-}\dagger^{\alpha}$	0	0	0	$-\frac{1}{\sqrt{2}\,(k^2+2\,k^4)\,(r_1+r_5)}$	$\frac{6\,k^2\,(r_1+r_5)+t_1}{2\,(k+2\,k^3)^2\,(r_1+r_5)\,t_1}$	0	$\frac{i\,(6\,k^2\,(r_1+r_5)+t_1)}{\sqrt{2}\,k\,(1+2\,k^2)^2\,(r_1+r_5)\,t_1}$
$\tau^{\#1}_{1^-}\dagger^{\alpha}$	0	0	0	0	0	0	0
$\tau^{\#2}_{1^-}\dagger^{\alpha}$	0	0	0	$\frac{i}{k\,(1+2\,k^2)\,(r_1+r_5)}$	$-\frac{i\,(6\,k^2\,(r_1+r_5)+t_1)}{\sqrt{2}\,k\,(1+2\,k^2)^2\,(r_1+r_5)\,t_1}$	0	$\frac{6\,k^2\,(r_1+r_5)+t_1}{(1+2\,k^2)^2\,(r_1+r_5)\,t_1}$

Source constraints	
SO(3) irreps	#
$\sigma^{\#1}_{0^+} == 0$	1
$\tau^{\#1}_{0^+} == 0$	1
$\tau^{\#2}_{0^+} == 0$	1
$\tau^{\#2\,\alpha}_{1^-} + 2\,i\,k\,\sigma^{\#2\,\alpha}_{1^-} == 0$	3
$\tau^{\#1\,\alpha}_{1^-} == 0$	3
$\tau^{\#1\,\alpha\beta}_{1^+} + i\,k\,\sigma^{\#2\,\alpha\beta}_{1^+} == 0$	3
$\tau^{\#1\,\alpha\beta}_{2^+} - 2\,i\,k\,\sigma^{\#1\,\alpha\beta}_{2^+} == 0$	5
Total #:	17



Quadratic pole	
Pole residue:	$-\frac{1}{(r_1+r_5)\,{t_1}^2} > 0$
Polarisations:	2

Unitarity conditions

$r_1 < 0 \;\&\&\; r_5 < -r_1 \;\&\&\; t_1 > 0$

Lagrangian density

$$-\frac{1}{3}\,t_1\;{\omega_{I}}^{\alpha I}\;{\omega_{\kappa\alpha}}^{\kappa} - t_1\;{\omega_{I}}^{\kappa\lambda}\;{\omega_{\kappa\lambda}}^{I} - r_5\,\partial_I\omega^{\kappa\lambda}{}_{\kappa}\,\partial^I{\omega_{\lambda}}^{\alpha}{}_{\alpha} - \frac{2}{3}\,r_1\,\partial^\beta\omega^{\theta\alpha}{}_{\kappa}\,\partial_\theta{\omega_{\alpha\beta}}^{\kappa} -$$
$$\frac{2}{3}\,r_1\,\partial_\theta{\omega_{\alpha\beta}}^{\kappa}\,\partial_\kappa\omega^{\alpha\beta\theta} + \frac{2}{3}\,r_1\,\partial_\theta{\omega_{\alpha\beta}}^{\kappa}\,\partial_\kappa\omega^{\theta\alpha\beta} - r_5\,\partial_\alpha{\omega_{\lambda}}^{\alpha}{}_{\theta}\,\partial_\kappa\omega^{\theta\kappa\lambda} +$$
$$r_5\,\partial_\theta{\omega_{\lambda}}^{\alpha}{}_{\alpha}\,\partial_\kappa\omega^{\theta\kappa\lambda} - r_5\,\partial_\alpha{\omega_{\lambda}}^{\alpha}{}_{\theta}\,\partial_\kappa\omega^{\kappa\lambda\theta} + 2\,r_5\,\partial_\theta{\omega_{\lambda}}^{\alpha}{}_{\alpha}\,\partial_\kappa\omega^{\kappa\lambda\theta} -$$
$$\frac{1}{2}\,t_1\,\partial^\alpha{f_{\theta\kappa}}\,\partial^\kappa{f_{\alpha}}^{\theta} - \frac{1}{2}\,t_1\,\partial^\alpha{f_{\kappa\theta}}\,\partial^\kappa{f_{\alpha}}^{\theta} - \frac{1}{2}\,t_1\,\partial^\alpha{f^{\lambda}}_{\kappa}\,\partial^\kappa{f_{\alpha\lambda}} +$$
$$\frac{1}{3}\,t_1\;{\omega_{\kappa\alpha}}^{\alpha}\,\partial^\kappa{f'}_{I} + \frac{1}{3}\,t_1\;{\omega_{\kappa\lambda}}^{\lambda}\,\partial^\kappa{f'}_{I} + \frac{2}{3}\,t_1\,\partial^\alpha{f_{\kappa\alpha}}\,\partial^\kappa{f'}_{I} - \frac{1}{3}\,t_1\,\partial_\kappa{f^{\lambda}}_{\lambda}\,\partial^\kappa{f'}_{I} +$$
$$2\,t_1\;{\omega_{I\kappa\theta}}\,\partial^\kappa{f'}^{\theta} - \frac{1}{3}\,t_1\;{\omega_{I\alpha}}^{\alpha}\,\partial^\kappa{f'}_{\kappa} - \frac{1}{3}\,t_1\;{\omega_{I\lambda}}^{\lambda}\,\partial^\kappa{f'}_{\kappa} + \frac{1}{2}\,t_1\,\partial^\alpha{f^{\lambda}}_{\kappa}\,\partial^\kappa{f_{\lambda\alpha}} +$$
$$\frac{1}{2}\,t_1\,\partial_\kappa{f_{\theta}}^{\lambda}\,\partial^\kappa{f_{\lambda}}^{\theta} + \frac{1}{2}\,t_1\,\partial_\kappa{f^{\lambda}}_{\theta}\,\partial^\kappa{f_{\lambda}}^{\theta} - \frac{1}{3}\,t_1\,\partial^\alpha{f^{\lambda}}_{\alpha}\,\partial^\kappa{f_{\lambda\kappa}} +$$
$$\frac{2}{3}\,r_1\,\partial_\kappa\omega^{\alpha\beta\theta}\,\partial^\kappa\omega_{\alpha\beta\theta} - \frac{2}{3}\,r_1\,\partial_\kappa\omega^{\theta\alpha\beta}\,\partial^\kappa\omega_{\alpha\beta\theta} + \frac{2}{3}\,r_1\,\partial^\beta{\omega_{I}}^{\alpha\lambda}\,\partial_\lambda{\omega_{\alpha\beta}}' -$$
$$\frac{8}{3}\,r_1\,\partial^\beta{\omega_{I}}^{\lambda\alpha}\,\partial_\lambda{\omega_{\alpha\beta}}' + r_5\,\partial_\alpha{\omega_{\lambda}}^{\alpha}{}_{\theta}\,\partial^\lambda\omega^{\theta\kappa}{}_{\kappa} - r_5\,\partial_\theta{\omega_{\lambda}}^{\alpha}{}_{\alpha}\,\partial^\lambda\omega^{\theta\kappa}{}_{\kappa}$$

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

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

	$\omega^{\#1}_{2^+\,\alpha\beta}$	$f^{\#1}_{2^+\,\alpha\beta}$	$\omega^{\#1}_{2^-\,\alpha\beta\chi}$
$\omega^{\#1}_{2^+}\dagger^{\alpha\beta}$	$\frac{t_1}{2}$	$-\frac{i\,k\,t_1}{\sqrt{2}}$	0
$f^{\#1}_{2^+}\dagger^{\alpha\beta}$	$\frac{i\,k\,t_1}{\sqrt{2}}$	$k^2\,t_1$	0
$\omega^{\#1}_{2^-}\dagger^{\alpha\beta\chi}$	0	0	$k^2\,r_1 + \frac{t_1}{2}$

	$\sigma^{\#1}_{0^+}$	$\tau^{\#1}_{0^+}$	$\tau^{\#2}_{0^+}$	$\sigma^{\#1}_{0^-}$
$\sigma^{\#1}_{0^+}\dagger$	0	0	0	0
$\tau^{\#1}_{0^+}\dagger$	0	0	0	0
$\tau^{\#2}_{0^+}\dagger$	0	0	0	0
$\sigma^{\#1}_{0^-}\dagger$	0	0	0	$-\frac{1}{t_1}$

	$\omega^{\#1}_{0^+}$	$f^{\#1}_{0^+}$	$f^{\#2}_{0^+}$	$\omega^{\#1}_{0^-}$
$\omega^{\#1}_{0^+}\dagger$	0	0	0	0
$f^{\#1}_{0^+}\dagger$	0	0	0	0
$f^{\#2}_{0^+}\dagger$	0	0	0	0
$\omega^{\#1}_{0^-}\dagger$	0	0	0	$-t_1$

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