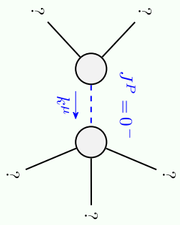
$r_2 < 0 \;\&\&\; t_2 > 0$



Massive particle	
Pole residue:	$-\frac{1}{r_2} > 0$
Polarisations:	1
Square mass:	$-\frac{t_2}{r_2} > 0$
Spin:	0
Parity:	Odd

(No massless particles)

	$\sigma_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^+}^{\#2}{}_{\alpha\beta}$	$\tau_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^-}^{\#1}{}_{\alpha}$	$\sigma_{1^-}^{\#2}{}_{\alpha}$	$\tau_{1^-}^{\#1}{}_{\alpha}$	$\tau_{1^-}^{\#2}{}_{\alpha}$
$\sigma_{1^+}^{\#1\,\alpha\beta\,\dagger}$	$\frac{1}{k^2\,(2\,r_3 - r_4)}$	$-\frac{\sqrt{2}}{k^2\,(1+k^2)\,(2\,r_3 - r_4)}$	$-\frac{i\,\sqrt{2}}{k\,(1+k^2)\,(2\,r_3 - r_4)}$	0	0	0	0
$\sigma_{1^+}^{\#2\,\alpha\beta\,\dagger}$	$-\frac{\sqrt{2}}{k^2\,(1+k^2)\,(2\,r_3 - r_4)}$	$\frac{k^2\,(6\,r_3 - 3\,r_4) + 2\,t_2}{(k+k^3)^2\,(2\,r_3 - r_4)\,t_2}$	$\frac{i\,(k^2\,(6\,r_3 - 3\,r_4) + 2\,t_2)}{k\,(1+k^2)^2\,(2\,r_3 - r_4)\,t_2}$	0	0	0	0
$\tau_{1^+}^{\#1\,\alpha\beta\,\dagger}$	$\frac{i\,\sqrt{2}}{k\,(1+k^2)\,(2\,r_3 - r_4)}$	$-\frac{i\,(k^2\,(6\,r_3 - 3\,r_4) + 2\,t_2)}{k\,(1+k^2)^2\,(2\,r_3 - r_4)\,t_2}$	$\frac{\frac{1}{r_3 - \frac{r_4}{2}} + \frac{3\,k^2}{t_2}}{(1+k^2)^2}$	0	0	0	0
$\sigma_{1^-}^{\#1\,\alpha\,\dagger}$	0	0	0	0	0	0	0
$\sigma_{1^-}^{\#2\,\alpha\,\dagger}$	0	0	0	0	0	0	0
$\tau_{1^-}^{\#1\,\alpha\,\dagger}$	0	0	0	0	0	0	0
$\tau_{1^-}^{\#2\,\alpha\,\dagger}$	0	0	0	0	0	0	0

Lagrangian density

$$\frac{2}{3}\,t_2\,\omega_{\prime}{}^{\kappa\lambda}\,\omega_{\kappa\lambda}{}^{\prime} + \frac{1}{3}\,t_2\,\omega_{\kappa\lambda}{}^{\prime}\,\omega^{\kappa\lambda}{}_{\prime} + f^{\alpha\beta}\,\tau_{\alpha\beta} + \omega^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi} +$$
$$\frac{2}{3}\,r_2\,\partial^{\beta}\omega^{\theta\alpha}{}_{\kappa}\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa} - \frac{1}{3}\,r_2\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa}\,\partial_{\kappa}\omega^{\alpha\beta\theta} - \frac{2}{3}\,r_2\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa}\,\partial_{\kappa}\omega^{\theta\alpha\beta} +$$
$$2\,r_4\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\theta\kappa\lambda} - 2\,r_4\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\theta\kappa\lambda} + \frac{1}{6}\,t_2\,\partial^{\alpha}f_{\theta\kappa}\,\partial^{\kappa}f_{\alpha}{}^{\theta} - \frac{1}{6}\,t_2\,\partial^{\alpha}f_{\kappa\theta}\,\partial^{\kappa}f_{\alpha}{}^{\theta} +$$
$$\frac{1}{6}\,t_2\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\,\partial^{\kappa}f_{\alpha\lambda} + \frac{1}{3}\,t_2\,\omega_{\prime\theta\kappa}\,\partial^{\kappa}f^{\prime\theta} - \frac{2}{3}\,t_2\,\omega_{\prime\kappa\theta}\,\partial^{\kappa}f^{\prime\theta} - \frac{1}{3}\,t_2\,\omega_{\theta\prime\kappa}\,\partial^{\kappa}f^{\prime\theta} +$$
$$\frac{2}{3}\,t_2\,\omega_{\theta\kappa\prime}\,\partial^{\kappa}f^{\prime\theta} - \frac{1}{6}\,t_2\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\,\partial^{\kappa}f_{\lambda\alpha} - \frac{1}{6}\,t_2\,\partial_{\kappa}f_{\theta}{}^{\lambda}\,\partial^{\kappa}f_{\lambda}{}^{\theta} + \frac{1}{6}\,t_2\,\partial_{\kappa}f^{\lambda}{}_{\theta}\,\partial^{\kappa}f_{\lambda}{}^{\theta} +$$
$$\frac{1}{3}\,r_2\,\partial_{\kappa}\omega^{\alpha\beta\theta}\,\partial^{\kappa}\omega_{\alpha\beta\theta} + \frac{2}{3}\,r_2\,\partial_{\kappa}\omega^{\theta\alpha\beta}\,\partial^{\kappa}\omega_{\alpha\beta\theta} - \frac{2}{3}\,r_2\,\partial^{\beta}\omega_{\prime}{}^{\alpha\lambda}\,\partial_{\lambda}\omega_{\alpha\beta}{}^{\prime} +$$
$$\frac{2}{3}\,r_2\,\partial^{\beta}\omega_{\prime}{}^{\lambda\alpha}\,\partial_{\lambda}\omega_{\alpha\beta}{}^{\prime} - 4\,r_3\,\partial^{\beta}\omega_{\prime}{}^{\lambda\alpha}\,\partial_{\lambda}\omega_{\alpha\beta}{}^{\prime} - 2\,r_4\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa} + 2\,r_4\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}$$

	$\omega_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^+}^{\#2}{}_{\alpha\beta}$	$f_{1^+}^{\#1}{}_{\alpha\beta}$	$\omega_{1^-}^{\#1}{}_{\alpha}$	$\omega_{1^-}^{\#2}{}_{\alpha}$	$f_{1^-}^{\#1}{}_{\alpha}$	$f_{1^-}^{\#2}{}_{\alpha}$
$\omega_{1^+}^{\#1\,\alpha\beta\,\dagger}$	$k^2\,(2\,r_3 - r_4) + \frac{2\,t_2}{3}$	$\frac{\sqrt{2}\,t_2}{3}$	$\frac{1}{3}\,i\,\sqrt{2}\,k\,t_2$	0	0	0	0
$\omega_{1^+}^{\#2\,\alpha\beta\,\dagger}$	$\frac{\sqrt{2}\,t_2}{3}$	$\frac{t_2}{3}$	$\frac{i\,k\,t_2}{3}$	0	0	0	0
$f_{1^+}^{\#1\,\alpha\beta\,\dagger}$	$-\frac{1}{3}\,i\,\sqrt{2}\,k\,t_2$	$-\frac{1}{3}\,i\,k\,t_2$	$\frac{k^2\,t_2}{3}$	0	0	0	0
$\omega_{1^-}^{\#1\,\alpha\,\dagger}$	0	0	0	0	0	0	0
$\omega_{1^-}^{\#2\,\alpha\,\dagger}$	0	0	0	0	0	0	0
$f_{1^-}^{\#1\,\alpha\,\dagger}$	0	0	0	0	0	0	0
$f_{1^-}^{\#2\,\alpha\,\dagger}$	0	0	0	0	0	0	0

Source constraints	
SO(3) irreps	#
$\tau_{0^+}^{\#2} == 0$	1
$\tau_{0^+}^{\#1} == 0$	1
$\tau_{1^-}^{\#2\,\alpha} == 0$	3
$\tau_{1^-}^{\#1\,\alpha} == 0$	3
$\sigma_{1^-}^{\#2\,\alpha} == 0$	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 #:	27

	$\sigma_{0^+}^{\#1}$	$\tau_{0^+}^{\#1}$	$\tau_{0^+}^{\#2}$	$\sigma_{0^-}^{\#1}$
$\sigma_{0^+}^{\#1\,\dagger}$	$\frac{1}{-2\,k^2\,r_3 + 4\,k^2\,r_4}$	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	$\frac{1}{k^2\,r_2 + t_2}$

	$\omega_{0^+}^{\#1}$	$f_{0^+}^{\#1}$	$f_{0^+}^{\#2}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1\,\dagger}$	$-2\,k^2\,(r_3 - 2\,r_4)$	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	$k^2\,r_2 + t_2$

	$\omega_{2^+}^{\#1}{}_{\alpha\beta}$	$f_{2^+}^{\#1}{}_{\alpha\beta}$	$\omega_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\omega_{2^+}^{\#1\,\alpha\beta\,\dagger}$	$k^2\,(-2\,r_3 + r_4)$	0	0
$f_{2^+}^{\#1\,\alpha\beta\,\dagger}$	0	0	0
$\omega_{2^-}^{\#1\,\alpha\beta\chi\,\dagger}$	0	0	0

	$\sigma_{2^+}^{\#1}{}_{\alpha\beta}$	$\tau_{2^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\sigma_{2^+}^{\#1\,\alpha\beta\,\dagger}$	$\frac{1}{k^2\,(-2\,r_3 + r_4)}$	0	0
$\tau_{2^+}^{\#1\,\alpha\beta\,\dagger}$	0	0	0
$\sigma_{2^-}^{\#1\,\alpha\beta\chi\,\dagger}$	0	0	0