	$\sigma_{1^-\ \alpha}^{\#2}$	$\tau_{1^-\ \alpha}^{\#1}$	$\tau_{1^-\ \alpha}^{\#2}$
$\sigma_{1^+\ \alpha\beta}^{\#1}$	0	0	0
$\sigma_{1^+\ \alpha\beta}^{\#2}$	0	0	0
$\tau_{1^+\ \alpha\beta}^{\#1}$	0	0	0
$\sigma_{1^-\ \alpha}^{\#1}$	0	0	$-\frac{2 i k (t_1-2 t_3)}{(1+2 k^2)(3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$
$\sigma_{1^-\ \alpha}^{\#2}$	0	0	$\frac{i \sqrt{2}\ k (6 k^2 (r_1+r_5)+t_1+4 t_3)}{(1+2 k^2)^2 (3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$
$\tau_{1^-\ \alpha}^{\#1}$	0	0	$\frac{\sqrt{2}\ (t_1-2 t_3)}{(1+2 k^2)(3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$
$\tau_{1^-\ \alpha}^{\#2}$	0	0	$\frac{6 k^2 (r_1+r_5)+t_1+4 t_3}{(1+2 k^2)^2 (3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$

	$\sigma_{1^+\ \alpha\beta}^{\#1}$	$\sigma_{1^+\ \alpha\beta}^{\#2}$	$\tau_{1^+\ \alpha\beta}^{\#1}$	$\sigma_{1^-\ \alpha}^{\#1}$	$\sigma_{1^-\ \alpha}^{\#2}$	$\tau_{1^-\ \alpha}^{\#1}$	$\tau_{1^-\ \alpha}^{\#2}$
$\sigma_{1^+\ \alpha\beta}^{\#1}$	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
$\sigma_{1^+\ \alpha\beta}^{\#2}$	$-\frac{\sqrt{2}}{t_1+k^2 t_1}$	$-\frac{2 k^2 (2 r_1+r_5)+t_1}{(1+k^2) {t_1}^2}$	$\frac{-2 i k^3 (2 r_1+r_5)+i k t_1}{(1+k^2)^2 {t_1}^2}$	0	0	0	0
$\tau_{1^+\ \alpha\beta}^{\#1}$	$\frac{i \sqrt{2}\ k}{t_1+k^2 t_1}$	$\frac{i (2 k^3 (2 r_1+r_5)-k t_1)}{(1+k^2)^2 {t_1}^2}$	$\frac{-2 k^4 (2 r_1+r_5)+k^2 t_1}{(1+k^2)^2 {t_1}^2}$	0	0	0	0
$\sigma_{1^-\ \alpha}^{\#1}$	0	0	0	0	$\frac{2 (t_1+t_3)}{3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3)}$	$\frac{2 i k (t_1-2 t_3)}{(1+2 k^2)(3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$	$\frac{2 k^2 (6 k^2 (r_1+r_5)+t_1+4 t_3)}{(1+2 k^2)^2 (3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$
$\sigma_{1^-\ \alpha}^{\#2}$	0	0	0	$\frac{2 (t_1+t_3)}{3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3)}$	0	$\frac{\sqrt{2}\ (t_1-2 t_3)}{(1+2 k^2)(3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$	$\frac{6 k^2 (r_1+r_5)+t_1+4 t_3}{(1+2 k^2)^2 (3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$
$\tau_{1^-\ \alpha}^{\#1}$	0	0	0	$\frac{2 i k (t_1-2 t_3)}{(1+2 k^2)(3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$	$\frac{\sqrt{2}\ (t_1-2 t_3)}{(1+2 k^2)(3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$	0	0
$\tau_{1^-\ \alpha}^{\#2}$	0	0	0	$-\frac{2 i k (t_1-2 t_3)}{(1+2 k^2)(3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$	$\frac{6 k^2 (r_1+r_5)+t_1+4 t_3}{(1+2 k^2)^2 (3 t_1 t_3+2 k^2 (r_1+r_5)(t_1+t_3))}$	0	0

	$\sigma_{0^+}^{\#1}$	$\tau_{0^+}^{\#1}$	$\tau_{0^+}^{\#2}$	$\sigma_{0^-}^{\#1}$
$\sigma_{0^+}^{\#1}$ †	$\frac{1}{(1+2 k^2)^2 t_3}$	$-\frac{i \sqrt{2}\ k}{(1+2 k^2)^2 t_3}$	0	0
$\tau_{0^+}^{\#1}$ †	$\frac{i \sqrt{2}\ k}{(1+2 k^2)^2 t_3}$	$\frac{2 k^2}{(1+2 k^2)^2 t_3}$	0	0
$\tau_{0^+}^{\#2}$ †	0	0	0	0
$\sigma_{0^-}^{\#1}$ †	0	0	0	$-\frac{1}{t_1}$

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
$\tau_{2^+}^{\#1\,\alpha\beta} - 2 i k \sigma_{2^+}^{\#1\,\alpha\beta} == 0$	5
Total #:	16

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

Lagrangian density

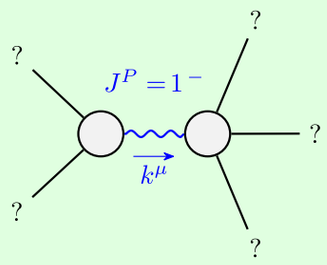
$$-\frac{1}{3} t_1\, \omega_{\prime}^{\alpha\prime}{}_{\kappa}^{\kappa}\, \omega_{\kappa\alpha}^{\prime} + \frac{2}{3} t_3\, \omega_{\prime}^{\alpha\prime}{}_{\kappa}^{\kappa}\, \omega_{\kappa\alpha}^{\prime} - t_1\, \omega_{\prime}^{\kappa\lambda}\, \omega_{\kappa\lambda}^{\prime} - r_5\, \partial_{\prime}\omega^{\kappa\lambda}{}_{\kappa}\, \partial^{\prime}\omega_{\lambda}^{\ \alpha} -$$
$$\frac{2}{3} r_1\, \partial^{\beta}\omega^{\theta\alpha}{}_{\kappa}\, \partial_{\theta}\omega_{\alpha\beta}^{\ \kappa} + \frac{2}{3} r_1\, \partial_{\theta}\omega_{\alpha\beta}^{\ \kappa}\, \partial_{\kappa}\omega^{\theta\alpha\beta} -$$
$$r_5\, \partial_{\alpha}\omega_{\lambda\ \theta}^{\ \alpha}\, \partial_{\kappa}\omega^{\theta\kappa\lambda} - r_5\, \partial_{\alpha}\omega_{\lambda\ \theta}^{\ \alpha}\, \partial_{\kappa}\omega^{\kappa\lambda\theta} +$$
$$2 r_5\, \partial_{\theta}\omega_{\lambda\ \alpha}^{\ \alpha}\, \partial_{\kappa}\omega^{\kappa\lambda\theta} - \frac{1}{2} t_1\, \partial^{\alpha} f_{\theta\kappa}\, \partial^{\kappa} f_{\alpha}^{\ \theta} -$$
$$\frac{1}{2} t_1\, \partial^{\alpha} f^{\lambda}{}_{\kappa}\, \partial^{\kappa} f^{\prime}{}_{\lambda\alpha} + \frac{1}{3} t_1\, \omega_{\kappa\alpha}^{\ \ \alpha}\, \partial^{\kappa} f^{\prime}{}_{\prime}^{\ \ \prime} - \frac{2}{3} t_3\, \omega_{\kappa\lambda}^{\ \ \lambda}\, \partial^{\kappa} f^{\prime}{}_{\prime}^{\ \ \prime} -$$
$$\frac{2}{3} t_3\, \partial_{\kappa} f^{\lambda}{}_{\lambda}\, \partial^{\kappa} f^{\prime}{}_{\prime}^{\ \ \prime} + 2 t_1\, \omega_{\prime\kappa\theta}\, \partial^{\kappa} f^{\prime\theta} - \frac{1}{3} t_1\, \omega_{\prime\lambda}^{\ \ \lambda}\, \partial^{\kappa} f^{\prime}{}_{\kappa}^{\ \ \prime} + \frac{2}{3} t_3\, \omega_{\prime\lambda}^{\ \ \lambda}\, \partial^{\kappa} f^{\prime}{}_{\kappa}^{\ \ \prime} -$$
$$\frac{1}{2} t_1\, \partial_{\kappa} f^{\lambda}{}_{\theta}\, \partial^{\kappa} f_{\lambda}^{\ \theta} - \frac{1}{3} t_1\, \partial^{\alpha} f^{\lambda}{}_{\alpha}\, \partial^{\kappa} f_{\lambda\kappa} +$$
$$\frac{2}{3} r_1\, \partial_{\kappa}\omega^{\alpha\beta\theta}\, \partial^{\kappa}\omega_{\alpha\beta\theta} - \frac{2}{3} r_1\, \partial_{\kappa}\omega^{\theta\alpha\beta}\, \partial^{\kappa}\omega_{\alpha\beta\theta} +$$
$$\frac{8}{3} r_1\, \partial^{\beta}\omega_{\prime}^{\ \lambda\alpha}\, \partial_{\lambda}\omega_{\alpha\beta}^{\ \ \prime} + r_5\, \partial_{\alpha}\omega_{\lambda\ \theta}^{\ \alpha}\, \partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}^{\prime} -$$

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

	$\omega_{0^+}^{\#1}$	$f_{0^+}^{\#1}$	$f_{0^+}^{\#2}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1}$ †	t_3	$-i \sqrt{2}\ k t_3$	0	0
$f_{0^+}^{\#1}$ †	$i \sqrt{2}\ k t_3$	$2 k^2 t_3$	0	0
$f_{0^+}^{\#2}$ †	0	0	0	0
$\omega_{0^-}^{\#1}$ †	0	0	0	$-t_1$

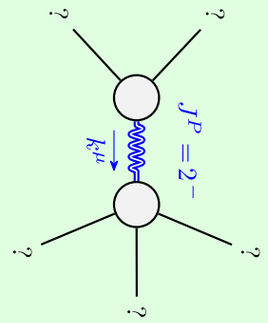
	$\sigma_{2^+\ \alpha\beta}^{\#1}$	$\tau_{2^+\ \alpha\beta}^{\#1}$	$\sigma_{2^-\ \alpha\beta\chi}^{\#1}$
$\sigma_{2^+}^{\#1}$ † $^{\alpha\beta}$	$\frac{2}{(1+2 k^2)^2 t_1}$	$-\frac{2 i \sqrt{2}\ k}{(1+2 k^2)^2 t_1}$	0
$\tau_{2^+}^{\#1}$ † $^{\alpha\beta}$	$\frac{2 i \sqrt{2}\ k}{(1+2 k^2)^2 t_1}$	$\frac{4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

	$\omega_{1^+\ \alpha\beta}^{\#1}$	$\omega_{1^+\ \alpha\beta}^{\#2}$	$f_{1^+\ \alpha\beta}^{\#1}$	$\omega_{1^-\ \alpha}^{\#1}$	$\omega_{1^-\ \alpha}^{\#2}$	$f_{1^-\ \alpha}^{\#1}$	$f_{1^-\ \alpha}^{\#2}$
$\omega_{1^+}^{\#1}$ † $^{\alpha\beta}$	$k^2 (2 r_1 + r_5) - \frac{t_1}{2}$	$-\frac{t_1}{\sqrt{2}}$	$-\frac{i k t_1}{\sqrt{2}}$	0	0	0	0
$\omega_{1^+}^{\#2}$ † $^{\alpha\beta}$	$-\frac{t_1}{\sqrt{2}}$	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	$\frac{1}{6} (6 k^2 (r_1 + r_5) + t_1 + 4 t_3)$	$\frac{t_1 - 2 t_3}{3 \sqrt{2}}$	0	$\frac{1}{3} i k (t_1 - 2 t_3)$
$\omega_{1^-}^{\#2}$ † $^{\alpha}$	0	0	0	$\frac{t_1 - 2 t_3}{3 \sqrt{2}}$	$\frac{t_1 + t_3}{3}$	0	$\frac{1}{3} i \sqrt{2}\ k (t_1 + t_3)$
$f_{1^-}^{\#1}$ † $^{\alpha}$	0	0	0	0	0	0	0
$f_{1^-}^{\#2}$ † $^{\alpha}$	0	0	0	$-\frac{1}{3} i k (t_1 - 2 t_3)$	$-\frac{1}{3} i \sqrt{2}\ k (t_1 + t_3)$	0	$\frac{2}{3} k^2 (t_1 + t_3)$



Massive particle

Pole residue:	$-\frac{3 (-2 t_1 t_3 (t_1+t_3)+r_1 ({t_1}^2+2 {t_3}^2)+r_5 ({t_1}^2+2 {t_3}^2))}{2 (r_1+r_5)(t_1+t_3)(-3 t_1 t_3+r_1 (t_1+t_3)+r_5 (t_1+t_3))} > 0$
Polarisations:	3
Square mass:	$-\frac{3 t_1 t_3}{2 (r_1+r_5)(t_1+t_3)} > 0$
Spin:	1
Parity:	Odd



Massive particle

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

Unitarity conditions

$$r_1 < 0 \,\&\&\, r_5 < -r_1 \,\&\&\, t_1 > 0 \,\&\&\, t_3 < -t_1 \,||\, t_3 > 0$$

(No massless particles)