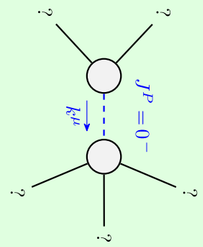
(No massless particles)



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

Unitarity conditions

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

Lagrangian density

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

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

	$\omega^{\#1}_{1^+\,\alpha\beta}$	$\omega^{\#2}_{1^+\,\alpha\beta}$	$f^{\#1}_{1^+\,\alpha\beta}$	$\omega^{\#1}_{1^-\,\alpha}$	$\omega^{\#2}_{1^-\,\alpha}$	$f^{\#1}_{1^-\,\alpha}$	$f^{\#2}_{1^-\,\alpha}$
$\omega^{\#1}_{1^+}{}^{\dagger\,\alpha\beta}$	$\frac{2 t_2}{3}$	$\frac{\sqrt{2}\, t_2}{3}$	$\frac{1}{3} i \sqrt{2}\, k t_2$	0	0	0	0
$\omega^{\#2}_{1^+}{}^{\dagger\,\alpha\beta}$	$\frac{\sqrt{2}\, t_2}{3}$	$\frac{t_2}{3}$	$\frac{i k t_2}{3}$	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	0	0	0	0
$\omega^{\#2}_{1^-}{}^{\dagger\,\alpha}$	0	0	0	0	0	0	0
$f^{\#1}_{1^-}{}^{\dagger\,\alpha}$	0	0	0	0	0	0	0
$f^{\#2}_{1^-}{}^{\dagger\,\alpha}$	0	0	0	0	0	0	0

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

Source constraints												
SO(3) irreps	$\tau^{\#2}_{0^+} == 0$	$\tau^{\#1}_{0^+} == 0$	$\tau^{\#1\alpha}_{1^-} == 0$	$\sigma^{\#2\alpha}_{1^-} == 0$	$\sigma^{\#1\alpha}_{1^-} == 0$	$\tau^{\#1\,\alpha\beta}_{1^+} + i\, k\, \sigma^{\#1\,\alpha\beta}_{1^+} == 0$	$\sigma^{\#1\,\alpha\beta}_{1^+} == \sigma^{\#2\,\alpha\beta}_{1^+}$	$\sigma^{\#1\,\alpha\beta\chi}_{2^-} == 0$	$\tau^{\#1\,\alpha\beta}_{2^+} == 0$	$\sigma^{\#1\,\alpha\beta}_{2^+} == 0$	Total #:
#	1	1	3	3	3	3	3	5	5	5	35

	$\omega^{\#1}_{0^+}$	$f^{\#1}_{0^+}$	$f^{\#2}_{0^+}$	$\omega^{\#1}_{0^-}$
$\omega^{\#1}_{0^+}{}^{\dagger}$	$6 k^2 r_3$	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	$k^2 r_2 + t_2$

	$\sigma^{\#1}_{0^+}$	$\tau^{\#1}_{0^+}$	$\tau^{\#2}_{0^+}$	$\sigma^{\#1}_{0^+}$
$\sigma^{\#1}_{0^+}$	$\frac{1}{6 k^2 r_3}$	0	0	0
$\tau^{\#1}_{0^+}$	0	0	0	0
$\tau^{\#2}_{0^+}$	0	0	0	0
$\sigma^{\#1}_{0^+}$	0	0	0	$\frac{1}{k^2 r_2 + t_2}$

	$\sigma^{\#1}_{2^+\,\alpha\beta}$	$\tau^{\#1}_{2^+\,\alpha\beta}$	$\sigma^{\#1}_{2^-\,\alpha\beta\chi}$
$\sigma^{\#1}_{2^+}{}^{\dagger\,\alpha\beta}$	0	0	0
$\tau^{\#1}_{2^+}{}^{\dagger\,\alpha\beta}$	0	0	0
$\sigma^{\#1}_{2^-}{}^{\dagger\,\alpha\beta\chi}$	0	0	0

	$\omega^{\#1}_{2^+\,\alpha\beta}$	$f^{\#1}_{2^+\,\alpha\beta}$	$\omega^{\#1}_{2^-\,\alpha\beta\chi}$
$\omega^{\#1}_{2^+}{}^{\dagger\,\alpha\beta}$	0	0	0
$f^{\#1}_{2^+}{}^{\dagger\,\alpha\beta}$	0	0	0
$\omega^{\#1}_{2^-}{}^{\dagger\,\alpha\beta\chi}$	0	0	0