Lagrangian density

$$2\,r_1\,\omega^{\kappa\lambda}{}_{\kappa}\,\partial^{l}\omega_{\lambda}{}^{\alpha}{}_{\alpha} - 2\,r_3\,\partial_{l}\omega^{\kappa\lambda}{}_{\kappa}\,\partial^{l}\omega_{\lambda}{}^{\alpha}{}_{\alpha} -$$

$$r_5\,\partial_{l}\omega^{\kappa\lambda}{}_{\kappa}\,\partial^{l}\omega_{\lambda}{}^{\alpha}{}_{\alpha} - \tfrac{2}{3}\,r_1\,\partial^{\beta}\omega^{\theta\alpha}{}_{\kappa}\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa} - \tfrac{2}{3}\,r_1\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa}\,\partial_{\kappa}\omega^{\alpha\beta\theta} +$$

$$\tfrac{2}{3}\,r_1\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa}\,\partial_{\kappa}\omega^{\theta\alpha\beta} - 2\,r_1\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\theta\kappa\lambda} + 2\,r_3\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\theta\kappa\lambda} +$$

$$r_5\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\theta\kappa\lambda} + 2\,r_1\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\theta\kappa\lambda} - 2\,r_3\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\theta\kappa\lambda} -$$

$$r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta} + 2\,r_1\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\kappa\lambda\theta} - 2\,r_3\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\kappa\lambda\theta} -$$

$$r_5\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\kappa\lambda\theta} - 4\,r_1\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta} + 4\,r_3\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta} +$$

$$2\,r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta} + \tfrac{2}{3}\,r_1\,\partial_{\kappa}\omega^{\alpha\beta\theta}\,\partial^{\kappa}\omega_{\alpha\beta\theta} - \tfrac{2}{3}\,r_1\,\partial_{\kappa}\omega^{\theta\alpha\beta}\,\partial^{\kappa}\omega_{\alpha\beta\theta} +$$

$$\tfrac{2}{3}\,r_1\,\partial^{\beta}\omega_{l}{}^{\alpha\lambda}\,\partial_{\lambda}\omega_{\alpha\beta}{}^{l} + \tfrac{4}{3}\,r_1\,\partial^{\beta}\omega_{l}{}^{\lambda\alpha}\,\partial_{\lambda}\omega_{\alpha\beta}{}^{l} - 4\,r_3\,\partial^{\beta}\omega_{l}{}^{\lambda\alpha}\,\partial_{\lambda}\omega_{\alpha\beta}{}^{l} +$$

$$2\,r_1\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa} - 2\,r_3\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa} + r_5\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa} -$$

$$2\,r_1\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa} + 2\,r_3\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa} - r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}$$

Added source term: $\big| \omega^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi}$

	$\sigma^{\#1}_{2^+\,\alpha\beta}$	$\sigma^{\#1}_{2^-\,\alpha\beta\chi}$
$\sigma^{\#1}_{2^+}\dagger^{\alpha\beta}$	0	0
$\sigma^{\#1}_{2^-}\dagger^{\alpha\beta\chi}$	0	$\dfrac{1}{k^2\,r_1}$

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

Source constraints

SO(3) irreps	#
$\sigma^{\#1}_{0^-} == 0$	1
$\sigma^{\#2\alpha}_{1^-} == 0$	3
$\sigma^{\#2\,\alpha\beta}_{1^+} == 0$	3
$\sigma^{\#1\,\alpha\beta}_{2^+} == 0$	5
Total #:	12

	$\omega^{\#2}_{1^-\,\alpha}$	$\omega^{\#1}_{1^-\,\alpha}$	$\omega^{\#2}_{1^+\,\alpha\beta}$	$\omega^{\#1}_{1^+\,\alpha\beta}$
$\omega^{\#1}_{1^+}\dagger^{\alpha\beta}$	0	0	0	$k^2\,(2\,r_3+r_5)$
$\omega^{\#2}_{1^+}\dagger^{\alpha\beta}$	0	0	0	0
$\omega^{\#1}_{1^-}\dagger^{\alpha}$	0	0	$k^2\,(-r_1+2\,r_3+r_5)$	0
$\omega^{\#2}_{1^-}\dagger^{\alpha}$	0	0	0	0

	$\sigma^{\#1}_{0^+}$	$\sigma^{\#1}_{0^-}$
$\sigma^{\#1}_{0^+}\dagger$	$\dfrac{1}{6\,k^2\,(-r_1+r_3)}$	0
$\sigma^{\#1}_{0^-}\dagger$	0	0

	$\omega^{\#1}_{0^+}$	$\omega^{\#1}_{0^-}$
$\omega^{\#1}_{0^+}\dagger$	$6\,k^2\,(-r_1+r_3)$	0
$\omega^{\#1}_{0^-}\dagger$	0	0

	$\sigma^{\#2}_{1^-\,\alpha}$	$\sigma^{\#1}_{1^-\,\alpha}$	$\sigma^{\#2}_{1^+\,\alpha\beta}$	$\sigma^{\#1}_{1^+\,\alpha\beta}$
$\sigma^{\#1}_{1^+}\dagger^{\alpha\beta}$	0	0	0	$\dfrac{1}{k^2\,(2\,r_3+r_5)}$
$\sigma^{\#2}_{1^+}\dagger^{\alpha\beta}$	0	0	0	0
$\sigma^{\#1}_{1^-}\dagger^{\alpha}$	0	$\dfrac{1}{k^2\,(-r_1+2\,r_3+r_5)}$	0	0
$\sigma^{\#2}_{1^-}\dagger^{\alpha}$	0	0	0	0

Unitarity conditions

$$r_1 < 0 \,\&\&\, (r_5 < r_1 - 2\,r_3 \,||\, r_5 > -2\,r_3) \,||\, r_1 > 0 \,\&\&\, -2\,r_3 < r_5 < r_1 - 2\,r_3$$

k^μ

Quadratic pole

Pole residue:	$\dfrac{1}{r_1\,(r_1 - 2\,r_3 - r_5)\,(2\,r_3 + r_5)} > 0$
Polarisations:	2

(No massive particles)