Lagrangian density

$$\omega^{\alpha\beta\chi}\ \sigma_{\alpha\beta\chi} - \frac{1}{2} r_3\, \partial_\iota \omega^{\kappa\lambda}{}_\kappa\, \partial' \omega_\lambda{}^\alpha{}_\alpha - r_5\, \partial_\iota \omega^{\kappa\lambda}{}_\kappa\, \partial' \omega_\lambda{}^\alpha{}_\alpha + \frac{2}{3} r_2\, \partial^\beta \omega^{\theta\alpha}{}_\kappa\, \partial_\theta \omega_{\alpha\beta}{}^\kappa -$$
$$\frac{1}{3} r_2\, \partial_\theta \omega_{\alpha\beta}{}^\kappa\, \partial_\kappa \omega^{\alpha\beta\theta} - \frac{2}{3} r_2\, \partial_\theta \omega_{\alpha\beta}{}^\kappa\, \partial_\kappa \omega^{\theta\alpha\beta} + \frac{1}{2} r_3\, \partial_\alpha \omega_\lambda{}^\alpha{}_\theta\, \partial_\kappa \omega^{\theta\kappa\lambda} -$$
$$r_5\, \partial_\alpha \omega_\lambda{}^\alpha{}_\theta\, \partial_\kappa \omega^{\theta\kappa\lambda} - \frac{1}{2} r_3\, \partial_\theta \omega_\lambda{}^\alpha{}_\alpha\, \partial_\kappa \omega^{\theta\kappa\lambda} + r_5\, \partial_\theta \omega_\lambda{}^\alpha{}_\alpha\, \partial_\kappa \omega^{\theta\kappa\lambda} -$$
$$\frac{1}{2} r_3\, \partial_\alpha \omega_\lambda{}^\alpha{}_\theta\, \partial_\kappa \omega^{\kappa\lambda\theta} - r_5\, \partial_\alpha \omega_\lambda{}^\alpha{}_\theta\, \partial_\kappa \omega^{\kappa\lambda\theta} + r_3\, \partial_\theta \omega_\lambda{}^\alpha{}_\alpha\, \partial_\kappa \omega^{\kappa\lambda\theta} +$$
$$2 r_5\, \partial_\theta \omega_\lambda{}^\alpha{}_\alpha\, \partial_\kappa \omega^{\kappa\lambda\theta} + \frac{1}{3} r_2\, \partial_\kappa \omega^{\alpha\beta\theta}\, \partial^\kappa \omega_{\alpha\beta\theta} + \frac{2}{3} r_2\, \partial_\kappa \omega^{\theta\alpha\beta}\, \partial^\kappa \omega_{\alpha\beta\theta} -$$
$$\frac{2}{3} r_2\, \partial^\beta \omega_\iota^{\alpha\lambda}\, \partial_\lambda \omega_{\alpha\beta}{}' + \frac{2}{3} r_2\, \partial^\beta \omega_\iota^{\lambda\alpha}\, \partial_\lambda \omega_{\alpha\beta}{}' - 4 r_3\, \partial^\beta \omega_\iota^{\lambda\alpha}\, \partial_\lambda \omega_{\alpha\beta}{}' -$$
$$\frac{1}{2} r_3\, \partial_\alpha \omega_\lambda{}^\alpha{}_\theta\, \partial^\lambda \omega^{\theta\kappa}{}_\kappa + r_5\, \partial_\alpha \omega_\lambda{}^\alpha{}_\theta\, \partial^\lambda \omega^{\theta\kappa}{}_\kappa + \frac{1}{2} r_3\, \partial_\theta \omega_\lambda{}^\alpha{}_\alpha\, \partial^\lambda \omega^{\theta\kappa}{}_\kappa - r_5\, \partial_\theta \omega_\lambda{}^\alpha{}_\alpha\, \partial^\lambda \omega^{\theta\kappa}{}_\kappa$$

	$\omega_{0^+}^{\#1}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1}\,\dagger$	0	0
$\omega_{0^-}^{\#1}\,\dagger$	0	$k^2 r_2$

	$\sigma_{0^+}^{\#1}$	$\sigma_{0^-}^{\#1}$
$\sigma_{0^+}^{\#1}\,\dagger$	0	0
$\sigma_{0^-}^{\#1}\,\dagger$	0	$\frac{1}{k^2 r_2}$

	$\sigma_{2^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\sigma_{2^+}^{\#1}\,\dagger^{\alpha\beta}$	$-\frac{2}{3 k^2 r_3}$	0
$\sigma_{2^-}^{\#1}\,\dagger^{\alpha\beta\chi}$	0	0

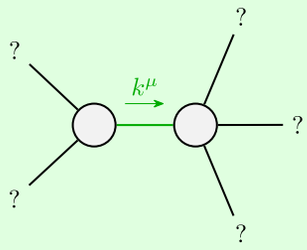
	$\sigma_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^+}^{\#2}{}_{\alpha\beta}$	$\sigma_{1^-}^{\#1}{}_{\alpha}$	$\sigma_{1^-}^{\#2}{}_{\alpha}$
$\sigma_{1^+}^{\#1}\,\dagger^{\alpha\beta}$	$\frac{1}{k^2 (2 r_3 + r_5)}$	0	0	0
$\sigma_{1^+}^{\#2}\,\dagger^{\alpha\beta}$	0	0	0	0
$\sigma_{1^-}^{\#1}\,\dagger^{\alpha}$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

	$\omega_{2^+}^{\#1}{}_{\alpha\beta}$	$\omega_{2^-}^{\#1}{}_{\alpha\beta\chi}$
$\omega_{2^+}^{\#1}\,\dagger^{\alpha\beta}$	$-\frac{3 k^2 r_3}{2}$	0
$\omega_{2^-}^{\#1}\,\dagger^{\alpha\beta\chi}$	0	0

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

Source constraints

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



Quadratic pole

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

(No massive particles)

Unitarity conditions

$$r_3 < 0 \,\&\&\, (r_5 < -\frac{r_3}{2} \,||\, r_5 > -2 r_3) \,||\, r_3 > 0 \,\&\&\, -2 r_3 < r_5 < -\frac{r_3}{2}$$