Lagrangian density

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

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

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

Source constraints

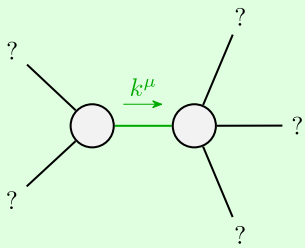
SO(3) irreps	#
$\sigma_{0^-}^{\#1} == 0$	1
$\sigma_{0^+}^{\#1} == 0$	1
$\sigma_{1^-}^{\#2}{}^{\alpha} == 0$	3
$\sigma_{1^+}^{\#2}{}^{\alpha\beta} == 0$	3
$\sigma_{2^-}^{\#1}{}^{\alpha\beta\chi} == 0$	5
Total #:	13

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

	$\sigma_{0^+}^{\#1}\,\dagger$	$\sigma_{0^-}^{\#1}\,\dagger$
$\sigma_{0^+}^{\#1}$	0	0
$\sigma_{0^-}^{\#1}$	0	0

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

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



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

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