Lagrangian density

$$-\tfrac{1}{2} r_3 \partial_\iota \omega^{\kappa\lambda}{}_\kappa \partial^\iota \omega_\lambda{}^\alpha{}_\alpha - r_5 \partial_\iota \omega^{\kappa\lambda}{}_\kappa \partial^\iota \omega_\lambda{}^\alpha{}_\alpha + \tfrac{1}{2} r_3 \partial_\alpha \omega_\lambda{}^\alpha{}_\theta \partial_\kappa \omega^{\theta\kappa\lambda} -$$
$$r_5 \partial_\alpha \omega_\lambda{}^\alpha{}_\theta \partial_\kappa \omega^{\theta\kappa\lambda} - \tfrac{1}{2} r_3 \partial_\theta \omega_\lambda{}^\alpha{}_\alpha \partial_\kappa \omega^{\theta\kappa\lambda} + r_5 \partial_\theta \omega_\lambda{}^\alpha{}_\alpha \partial_\kappa \omega^{\theta\kappa\lambda} -$$
$$\tfrac{1}{2} r_3 \partial_\alpha \omega_\lambda{}^\alpha{}_\theta \partial_\kappa \omega^{\kappa\lambda\theta} - r_5 \partial_\alpha \omega_\lambda{}^\alpha{}_\theta \partial_\kappa \omega^{\kappa\lambda\theta} + r_3 \partial_\theta \omega_\lambda{}^\alpha{}_\alpha \partial_\kappa \omega^{\kappa\lambda\theta} +$$
$$2 r_5 \partial_\theta \omega_\lambda{}^\alpha{}_\alpha \partial_\kappa \omega^{\kappa\lambda\theta} - 4 r_3 \partial^\beta \omega_\iota{}^{\lambda\alpha} \partial_\lambda \omega_{\alpha\beta}{}^\iota - \tfrac{1}{2} r_3 \partial_\alpha \omega_\lambda{}^\alpha{}_\theta \partial^\lambda \omega^{\theta\kappa}{}_\kappa +$$
$$r_5 \partial_\alpha \omega_\lambda{}^\alpha{}_\theta \partial^\lambda \omega^{\theta\kappa}{}_\kappa + \tfrac{1}{2} r_3 \partial_\theta \omega_\lambda{}^\alpha{}_\alpha \partial^\lambda \omega^{\theta\kappa}{}_\kappa - r_5 \partial_\theta \omega_\lambda{}^\alpha{}_\alpha \partial^\lambda \omega^{\theta\kappa}{}_\kappa$$

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

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

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

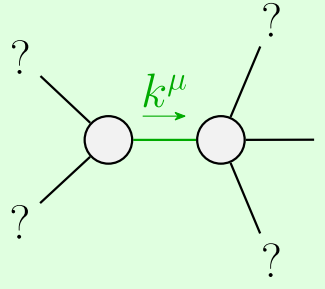
	$\omega_{0^+}^{\#1}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1}{}^\dagger$	0	0
$\omega_{0^-}^{\#1}{}^\dagger$	0	0

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

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

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

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



Quadratic pole

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

Polarisations: 2

Unitarity conditions

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

(No massive particles)