Lagrangian density

$\omega^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi} + 2\,r_1\,\partial_\iota\omega^{\kappa\lambda}{}_\kappa\,\partial^\iota\omega_\lambda{}^\alpha{}_\alpha - 2\,r_3\,\partial_\iota\omega^{\kappa\lambda}{}_\alpha\,\partial^\iota\omega_\lambda{}^\alpha{}_\kappa -$

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

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

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

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

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

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

$\frac{2}{3}\,r_1\,\partial^\beta\omega^{\alpha\lambda}{}_\iota\,\partial_\lambda\omega_{\alpha\beta}{}^\iota + \frac{4}{3}\,r_1\,\partial^\beta\omega^{\lambda\alpha}{}_\iota\,\partial_\lambda\omega_{\alpha\beta}{}^\iota - 4\,r_3\,\partial^\beta\omega^{\lambda\alpha}{}_\iota\,\partial_\lambda\omega_{\alpha\beta}{}^\iota +$

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

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

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

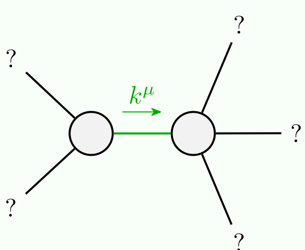
Source constraints	
SO(3) irreps	#
$\sigma^{\#1}_{0^-} == 0$	1
$\sigma^{\#2\,\alpha}_{1^-} == 0$	3
$\sigma^{\#2\,\alpha\beta}_{1^+} == 0$	3
$\sigma^{\#1\,\alpha\beta}_{2^+} == 0$	5
Total #:	12

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

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

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

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



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

(No massive particles)

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