



Lagrangian density

$$\begin{aligned}
 & -\lambda \, \omega_{\iota\kappa\theta} \, \omega^{\iota\theta\kappa} - \lambda \, \omega^{\iota\theta}_{\iota} \, \omega^{\kappa}_{\theta} - \lambda \, \omega^{\kappa}_{\iota} \, \omega^{\iota}_{\theta} - \lambda \, \omega^{\kappa\iota}_{\iota} \, \omega^{\iota}_{\theta} + f^{\alpha\beta} \, \tau_{\alpha\beta} + \\
 & \omega^{\alpha\beta\chi} \, \sigma_{\alpha\beta\chi} - 2 \, \lambda \, f^{\iota\theta} \, \partial_{\theta} \omega^{\kappa}_{\iota} + 2 \, \lambda \, \partial_{\theta} \omega^{\iota\theta}_{\iota} + 2 \, \lambda \, f^{\iota\theta} \, \partial_{\kappa} \omega^{\kappa}_{\iota} - 2 \, \lambda \, f^{\iota}_{\theta} \, \partial_{\kappa} \omega^{\theta\kappa}_{\theta} - \\
 & \frac{1}{2} \, \lambda \, \partial^{\alpha} f_{\theta\kappa} \, \partial^{\kappa} f^{\theta}_{\alpha} - \frac{1}{2} \, \lambda \, \partial^{\alpha} f_{\kappa\theta} \, \partial^{\kappa} f^{\theta}_{\alpha} - \frac{1}{2} \, \lambda \, \partial^{\alpha} f^{\zeta}_{\kappa} \, \partial^{\kappa} f_{\alpha\zeta} + \lambda \, \omega^{\alpha}_{\kappa} \, \partial^{\kappa} f^{\iota}_{\iota} + \\
 & \lambda \, \omega^{\zeta}_{\kappa} \, \partial^{\kappa} f^{\iota}_{\iota} + 2 \, \lambda \, \partial^{\alpha} f_{\kappa\alpha} \, \partial^{\kappa} f^{\iota}_{\iota} - \lambda \, \partial_{\kappa} f^{\zeta}_{\iota} \, \partial^{\kappa} f^{\iota}_{\iota} + 2 \, \lambda \, \omega_{\iota\kappa\theta} \, \partial^{\kappa} f^{\iota\theta}_{\iota} - \lambda \, \omega^{\alpha}_{\iota\alpha} \, \partial^{\kappa} f^{\iota}_{\kappa} - \\
 & \lambda \, \omega_{\iota\zeta} \, \partial^{\kappa} f^{\iota}_{\kappa} + \frac{1}{2} \, \lambda \, \partial^{\alpha} f^{\zeta}_{\kappa} \, \partial^{\kappa} f_{\zeta\alpha} + \frac{1}{2} \, \lambda \, \partial_{\kappa} f^{\zeta}_{\theta} \, \partial^{\kappa} f^{\theta}_{\zeta} + \frac{1}{2} \, \lambda \, \partial_{\kappa} f^{\zeta}_{\theta} \, \partial^{\kappa} f^{\theta}_{\zeta} - \lambda \, \partial^{\kappa} f^{\zeta}_{\alpha} \, \partial^{\kappa} f^{\alpha}_{\zeta}
 \end{aligned}$$

Source constraints

SO(3) irreps	#
$\sigma_0^{\#1} == 0$	1
$\tau_0^{\#2} == 0$	1
$\sigma_0^{\#1} == 0$	1
$\tau_1^{\#2\alpha} == 0$	3
$\tau_1^{\#1\alpha} == 0$	3
$\sigma_1^{\#2\alpha} == 0$	3
$\sigma_1^{\#1\alpha} == 0$	3
$\tau_1^{\#1\alpha\beta} == 0$	3
$\sigma_1^{\#2\alpha\beta} == 0$	3
$\sigma_1^{\#1\alpha\beta} == 0$	3
$\sigma_2^{\#1\alpha\beta\chi} == 0$	5
$\sigma_2^{\#1\alpha\beta} == 0$	5
Total #:	34

	$\omega_{2^{+}\alpha\beta}^{\#1}$	$f_{2^{+}\alpha\beta}^{\#1}$	$\omega_{2^{-}\alpha\beta\chi}^{\#1}$
$\omega_{2^{+}}^{\#1} + \alpha\beta$	0	0	0
$f_{2^{+}}^{\#1} + \alpha\beta$	0	$k^2 \, \lambda$	0
$\omega_{2^{-}}^{\#1} + \alpha\beta\chi$	0	0	0

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

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

	$\sigma_{2^{+}\alpha\beta}^{\#1}$	$\tau_{2^{+}\alpha\beta}^{\#1}$	$\sigma_{2^{-}\alpha\beta\chi}^{\#1}$
$\sigma_{2^{+}}^{\#1} + \alpha\beta$	0	0	0
$\tau_{2^{+}}^{\#1} + \alpha\beta$	0	$\frac{1}{k^2 \, \lambda}$	0
$\sigma_{2^{-}}^{\#1} + \alpha\beta\chi$	0	0	0

	$\sigma_{1^{+}\alpha\beta}^{\#1}$	$\sigma_{1^{+}\alpha\beta}^{\#2}$	$\tau_{1^{+}\alpha\beta}^{\#1}$	$\sigma_{1^{-}\alpha}^{\#1}$	$\sigma_{1^{-}\alpha}^{\#2}$	$\tau_{1^{-}\alpha}^{\#1}$	$\tau_{1^{-}\alpha}^{\#2}$
$\sigma_{1^{+}}^{\#1} + \alpha\beta$	0	0	0	0	0	0	0
$\sigma_{1^{+}}^{\#2} + \alpha\beta$	0	0	0	0	0	0	0
$\tau_{1^{+}}^{\#1} + \alpha\beta$	0	0	0	0	0	0	0
$\sigma_{1^{-}}^{\#1} + \alpha$	0	0	0	0	0	0	0
$\sigma_{1^{-}}^{\#2} + \alpha$	0	0	0	0	0	0	0
$\tau_{1^{-}}^{\#1} + \alpha$	0	0	0	0	0	0	0
$\tau_{1^{-}}^{\#2} + \alpha$	0	0	0	0	0	0	0

	$\omega_{1^{+}\alpha\beta}^{\#1}$	$\omega_{1^{+}\alpha\beta}^{\#2}$	$f_{1^{+}\alpha\beta}^{\#1}$	$\omega_{1^{-}\alpha}^{\#1}$	$\omega_{1^{-}\alpha}^{\#2}$	$f_{1^{-}\alpha}^{\#1}$	$f_{1^{-}\alpha}^{\#2}$
$\omega_{1^{+}}^{\#1} + \alpha\beta$	0	0	0	0	0	0	0
$\omega_{1^{+}}^{\#2} + \alpha\beta$	0	0	0	0	0	0	0
$f_{1^{+}}^{\#1} + \alpha\beta$	0	0	0	0	0	0	0
$\omega_{1^{-}}^{\#1} + \alpha$	0	0	0	0	0	0	0
$\omega_{1^{-}}^{\#2} + \alpha$	0	0	0	0	0	0	0
$f_{1^{-}}^{\#1} + \alpha$	0	0	0	0	0	0	0
$f_{1^{-}}^{\#2} + \alpha$	0	0	0	0	0	0	0

Unitarity conditions

$$\lambda > 0$$

(No massive particles)