

Lagrangian density

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

Added source term:  $\left| f^{\alpha\beta} \, \tau_{\alpha\beta} + \omega^{\alpha\beta\chi} \, \sigma_{\alpha\beta\chi} \right.$

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

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

Source constraints

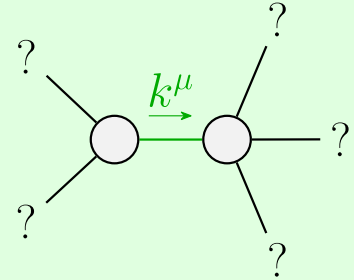
SO(3) irreps	#
$\sigma_{0-}^{\#1} == 0$	1
$\tau_{0+}^{\#2} == 0$	1
$\sigma_{0+}^{\#1} == 0$	1
$\tau_{1-}^{\#2\alpha} == 0$	3
$\tau_{1-}^{\#1\alpha} == 0$	3
$\sigma_{1-}^{\#2\alpha} == 0$	3
$\sigma_{1-}^{\#1\alpha} == 0$	3
$\tau_{1+}^{\#1\alpha\beta} == 0$	3
$\sigma_{1+}^{\#2\alpha\beta} == 0$	3
$\sigma_{1+}^{\#1\alpha\beta} == 0$	3
$\sigma_{2-}^{\#1\alpha\beta\chi} == 0$	5
$\sigma_{2+}^{\#1\alpha\beta} == 0$	5
Total #:	34

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

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

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



Quadratic pole

Pole residue:  $\frac{1}{\lambda} > 0$

Polarisations: 2

Unitarity conditions

$$\lambda > 0$$

(No massive particles)