

	$\sigma_{1^+}^{\#1} \dagger \alpha\beta$	$\sigma_{1^+}^{\#2} \dagger \alpha\beta$	$\tau_{1^+}^{\#1} \dagger \alpha\beta$	$\sigma_{1^+}^{\#1} \dagger \alpha$	$\sigma_{1^+}^{\#2} \dagger \alpha$	$\tau_{1^+}^{\#1} \dagger \alpha$	$\tau_{1^+}^{\#2} \dagger \alpha$
$\sigma_{1^+}^{\#1} \dagger \alpha\beta$	$\frac{1}{k^2(2r_3+r_5)}$	$-\frac{\sqrt{2}}{k^2(1+k^2)(2r_3+r_5)}$	$-\frac{i\sqrt{2}}{k(1+k^2)(2r_3+r_5)}$	0	0	0	0
$\sigma_{1^+}^{\#2} \dagger \alpha\beta$	$-\frac{\sqrt{2}}{k^2(1+k^2)(2r_3+r_5)}$	$\frac{3k^2(2r_3+r_5)+2t_2}{(k+k^3)^2(2r_3+r_5)t_2}$	$\frac{i(3k^2(2r_3+r_5)+2t_2)}{k(1+k^2)^2(2r_3+r_5)t_2}$	0	0	0	0
$\tau_{1^+}^{\#1} \dagger \alpha\beta$	$\frac{i\sqrt{2}}{k(1+k^2)(2r_3+r_5)}$	$-\frac{i(3k^2(2r_3+r_5)+2t_2)}{k(1+k^2)^2(2r_3+r_5)t_2}$	$\frac{3k^2(2r_3+r_5)+2t_2}{(1+k^2)^2(2r_3+r_5)t_2}$	0	0	0	0
$\sigma_{1^+}^{\#1} \dagger \alpha$	0	0	0	$\frac{2}{k^2(r_3+2r_5)}$	0	0	0
$\sigma_{1^+}^{\#2} \dagger \alpha$	0	0	0	0	0	0	0
$\tau_{1^+}^{\#1} \dagger \alpha$	0	0	0	0	0	0	0
$\tau_{1^+}^{\#2} \dagger \alpha$	0	0	0	0	0	0	0

Lagrangian density

$$\begin{aligned} &\frac{2}{3}t_2\omega_{\lambda'}^{\kappa\lambda}\omega_{\kappa\lambda'}^{\lambda}+\frac{1}{3}t_2\omega_{\kappa\lambda}^{\lambda'}\omega_{\lambda'}^{\kappa\lambda}-\frac{1}{2}r_3\partial_{\lambda}\omega_{\kappa}^{\kappa\lambda}\partial_{\lambda'}\omega_{\lambda}^{\alpha}-r_5\partial_{\lambda'}\omega_{\kappa}^{\kappa\lambda}\partial_{\lambda}\omega_{\lambda}^{\alpha}+\\ &\frac{1}{2}r_3\partial_{\alpha}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\theta}^{\theta\kappa\lambda}-r_5\partial_{\alpha}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\theta}^{\theta\kappa\lambda}-\frac{1}{2}r_3\partial_{\theta}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\alpha}^{\theta\kappa\lambda}+\\ &r_5\partial_{\theta}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\alpha}^{\theta\kappa\lambda}-\frac{1}{2}r_3\partial_{\alpha}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\theta}^{\kappa\lambda\theta}-r_5\partial_{\alpha}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\theta}^{\kappa\lambda\theta}+\\ &r_3\partial_{\theta}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\alpha}^{\kappa\lambda\theta}+2r_5\partial_{\theta}\omega_{\lambda}^{\alpha}\partial_{\kappa}\omega_{\alpha}^{\kappa\lambda\theta}+\frac{1}{6}t_2\partial^{\alpha}f_{\theta\kappa}\partial^{\kappa}f_{\alpha}^{\theta}-\\ &\frac{1}{6}t_2\partial^{\alpha}f_{\kappa\theta}\partial^{\kappa}f_{\alpha}^{\theta}+\frac{1}{6}t_2\partial^{\alpha}f_{\kappa}^{\lambda}\partial^{\kappa}f_{\alpha\lambda}+\frac{1}{3}t_2\omega_{\theta\kappa}\partial^{\kappa}f^{\theta}-\frac{2}{3}t_2\omega_{\theta\kappa}\partial^{\kappa}f^{\theta}-\\ &\frac{1}{3}t_2\omega_{\theta\kappa}\partial^{\kappa}f^{\theta}+\frac{2}{3}t_2\omega_{\theta\kappa}\partial^{\kappa}f^{\theta}-\frac{1}{6}t_2\partial^{\alpha}f_{\kappa}^{\lambda}\partial^{\kappa}f_{\lambda\alpha}-\frac{1}{6}t_2\partial_{\kappa}f_{\theta}^{\lambda}\partial^{\kappa}f_{\lambda}^{\theta}+\\ &\frac{1}{6}t_2\partial_{\kappa}f_{\theta}^{\lambda}\partial^{\kappa}f_{\lambda}^{\theta}-4r_3\partial^{\beta}\omega_{\lambda'}^{\lambda\alpha}\partial_{\lambda}\omega_{\alpha\beta}^{\lambda'}-\frac{1}{2}r_3\partial_{\alpha}\omega_{\lambda}^{\alpha}\partial^{\lambda}\omega_{\theta}^{\theta\kappa}+\\ &r_5\partial_{\alpha}\omega_{\lambda}^{\alpha}\partial^{\lambda}\omega_{\theta}^{\theta\kappa}+\frac{1}{2}r_3\partial_{\theta}\omega_{\lambda}^{\alpha}\partial^{\lambda}\omega_{\alpha}^{\theta\kappa}-r_5\partial_{\theta}\omega_{\lambda}^{\alpha}\partial^{\lambda}\omega_{\alpha}^{\theta\kappa} \end{aligned}$$

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

	$\omega_{1^+}^{\#1} \dagger \alpha\beta$	$\omega_{1^+}^{\#2} \dagger \alpha\beta$	$f_{1^+}^{\#1} \dagger \alpha\beta$	$\omega_{1^+}^{\#1} \dagger \alpha$	$\omega_{1^+}^{\#2} \dagger \alpha$	$f_{1^+}^{\#1} \dagger \alpha$	$f_{1^+}^{\#2} \dagger \alpha$
$\omega_{1^+}^{\#1} \dagger \alpha\beta$	$k^2(2r_3+r_5)+\frac{2t_2}{3}$	$\frac{\sqrt{2}t_2}{3}$	$\frac{1}{3}i\sqrt{2}kt_2$	0	0	0	0
$\omega_{1^+}^{\#2} \dagger \alpha\beta$	$\frac{\sqrt{2}t_2}{3}$	$\frac{t_2}{3}$	$\frac{ikt_2}{3}$	0	0	0	0
$f_{1^+}^{\#1} \dagger \alpha\beta$	$-\frac{1}{3}i\sqrt{2}kt_2$	$-\frac{1}{3}ikt_2$	$\frac{k^2t_2}{3}$	0	0	0	0
$\omega_{1^+}^{\#1} \dagger \alpha$	0	0	0	$\frac{1}{2}k^2(r_3+2r_5)$	0	0	0
$\omega_{1^+}^{\#2} \dagger \alpha$	0	0	0	0	0	0	0
$f_{1^+}^{\#1} \dagger \alpha$	0	0	0	0	0	0	0
$f_{1^+}^{\#2} \dagger \alpha$	0	0	0	0	0	0	0

Source constraints

SO(3) irreps	#
$\sigma_{0^+}^{\#1} == 0$	1
$\tau_{0^+}^{\#1} == 0$	1
$\tau_{0^+}^{\#2} == 0$	1
$\tau_{1^+}^{\#2\alpha} == 0$	3
$\tau_{1^+}^{\#1\alpha} == 0$	3
$\sigma_{1^+}^{\#2\alpha} == 0$	3
$\tau_{1^+}^{\#1\alpha\beta} + i k \sigma_{1^+}^{\#2\alpha\beta} == 0$	3
$\sigma_{2^+}^{\#1\alpha\beta\chi} == 0$	5
$\tau_{2^+}^{\#1\alpha\beta} == 0$	5
Total #:	25

	$\omega_{0^+}^{\#1} \dagger$	$f_{0^+}^{\#1} \dagger$	$f_{0^+}^{\#2} \dagger$	$\omega_{0^+}^{\#1} \dagger$
$\omega_{0^+}^{\#1} \dagger$	0	0	0	0
$f_{0^+}^{\#1} \dagger$	0	0	0	0
$f_{0^+}^{\#2} \dagger$	0	0	0	0
$\omega_{0^+}^{\#1} \dagger$	0	0	0	t_2

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

	$\sigma_{0^+}^{\#1} \dagger$	$\tau_{0^+}^{\#1} \dagger$	$\tau_{0^+}^{\#2} \dagger$	$\sigma_{0^+}^{\#1} \dagger$
$\sigma_{0^+}^{\#1} \dagger$	0	0	0	0
$\tau_{0^+}^{\#1} \dagger$	0	0	0	0
$\tau_{0^+}^{\#2} \dagger$	0	0	0	0
$\sigma_{0^+}^{\#1} \dagger$	0	0	0	$\frac{1}{t_2}$

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