

	$\sigma_{1^+ \alpha \beta}^{\#1}$	$\sigma_{1^+ \alpha \beta}^{\#2}$	$\tau_{1^+ \alpha \beta}^{\#1}$	$\sigma_{1^- \alpha}^{\#1}$	$\sigma_{1^- \alpha}^{\#2}$	$\tau_{1^- \alpha}^{\#1}$	$\tau_{1^- \alpha}^{\#2}$
$\sigma_{1^+ \dagger}^{\#1} \dagger^{\alpha \beta}$	$\frac{1}{k^2 (2r_3 + r_5)}$	$-\frac{\sqrt{2}}{k^2 (1+k^2) (2r_3 + r_5)}$	$-\frac{i \sqrt{2}}{k (1+k^2) (2r_3 + r_5)}$	0	0	0	0
$\sigma_{1^+ \dagger}^{\#2} \dagger^{\alpha \beta}$	$-\frac{\sqrt{2}}{k^2 (1+k^2) (2r_3 + r_5)}$	$\frac{3k^2 (2r_3 + r_5) + 2t_2}{(k+k^3)^2 (2r_3 + r_5) t_2}$	$\frac{i (3k^2 (2r_3 + r_5) + 2t_2)}{k (1+k^2)^2 (2r_3 + r_5) t_2}$	0	0	0	0
$\tau_{1^+ \dagger}^{\#1} \dagger^{\alpha \beta}$	$\frac{i \sqrt{2}}{k (1+k^2) (2r_3 + r_5)}$	$-\frac{i (3k^2 (2r_3 + r_5) + 2t_2)}{k (1+k^2)^2 (2r_3 + r_5) t_2}$	$\frac{3k^2 (2r_3 + r_5) + 2t_2}{(1+k^2)^2 (2r_3 + r_5) t_2}$	0	0	0	0
$\sigma_{1^- \dagger}^{\#1} \dagger^\alpha$	0	0	0	$\frac{2}{k^2 (r_3 + 2r_5)}$	$\frac{2 \sqrt{2}}{k^2 (1+2k^2) (r_3 + 2r_5)}$	0	$\frac{4i}{k (1+2k^2) (r_3 + 2r_5)}$
$\sigma_{1^- \dagger}^{\#2} \dagger^\alpha$	0	0	0	$\frac{2 \sqrt{2}}{k^2 (1+2k^2) (r_3 + 2r_5)}$	$\frac{3k^2 (r_3 + 2r_5) + 4t_3}{(k+2k^3)^2 (r_3 + 2r_5) t_3}$	0	$\frac{i \sqrt{2} (3k^2 (r_3 + 2r_5) + 4t_3)}{k (1+2k^2)^2 (r_3 + 2r_5) t_3}$
$\tau_{1^- \dagger}^{\#1} \dagger^\alpha$	0	0	0	0	0	0	0
$\tau_{1^- \dagger}^{\#2} \dagger^\alpha$	0	0	0	$-\frac{4i}{k (1+2k^2) (r_3 + 2r_5)}$	$-\frac{i \sqrt{2} (3k^2 (r_3 + 2r_5) + 4t_3)}{k (1+2k^2)^2 (r_3 + 2r_5) t_3}$	0	$\frac{6k^2 (r_3 + 2r_5) + 8t_3}{(1+2k^2)^2 (r_3 + 2r_5) t_3}$

	$\omega_{1^+ \alpha \beta}^{\#1}$	$\omega_{1^+ \alpha \beta}^{\#2}$	$f_{1^+ \alpha \beta}^{\#1}$	$\omega_{1^- \alpha}^{\#1}$	$\omega_{1^- \alpha}^{\#2}$	$f_{1^- \alpha}^{\#1}$	$f_{1^- \alpha}^{\#2}$
$\omega_{1^+ \dagger}^{\#1} \dagger^{\alpha \beta}$	$k^2 (2r_3 + r_5) + \frac{2t_2}{3}$	$\frac{\sqrt{2} t_2}{3}$	$\frac{1}{3} i \sqrt{2} k t_2$	0	0	0	0
$\omega_{1^+ \dagger}^{\#2} \dagger^{\alpha \beta}$	$\frac{\sqrt{2} t_2}{3}$	$\frac{t_2}{3}$	$\frac{i k t_2}{3}$	0	0	0	0
$f_{1^+ \dagger}^{\#1} \dagger^{\alpha \beta}$	$-\frac{1}{3} i \sqrt{2} k t_2$	$-\frac{1}{3} i k t_2$	$\frac{k^2 t_2}{3}$	0	0	0	0
$\omega_{1^- \dagger}^{\#1} \dagger^\alpha$	0	0	0	$k^2 (\frac{r_3}{2} + r_5) + \frac{2t_3}{3}$	$-\frac{\sqrt{2} t_3}{3}$	0	$-\frac{2}{3} i k t_3$
$\omega_{1^- \dagger}^{\#2} \dagger^\alpha$	0	0	0	$-\frac{\sqrt{2} t_3}{3}$	$\frac{t_3}{3}$	0	$\frac{1}{3} i \sqrt{2} k t_3$
$f_{1^- \dagger}^{\#1} \dagger^\alpha$	0	0	0	0	0	0	0
$f_{1^- \dagger}^{\#2} \dagger^\alpha$	0	0	0	$\frac{2 i k t_3}{3}$	$-\frac{1}{3} i \sqrt{2} k t_3$	0	$\frac{2k^2 t_3}{3}$

Source constraints	
SO(3) irreps	#
$\tau_{0^+}^{\#2} == 0$	1
$\tau_{0^+}^{\#1} - 2 i k \sigma_{0^+}^{\#1} == 0$	1
$\tau_{1^-}^{\#2 \alpha} + 2 i k \sigma_{1^-}^{\#2 \alpha} == 0$	3
$\tau_{1^-}^{\#1 \alpha} == 0$	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 #:	21

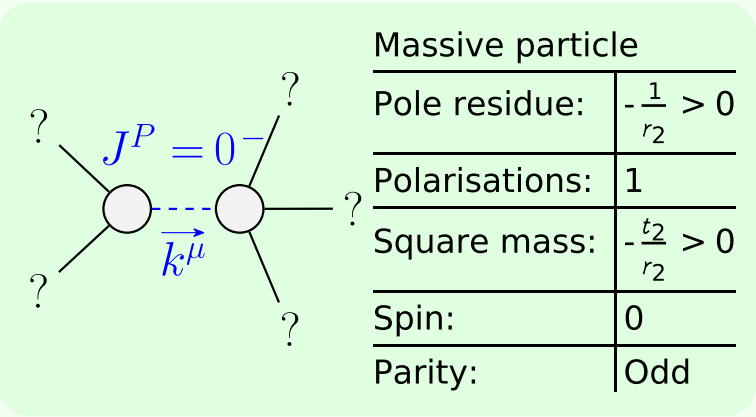
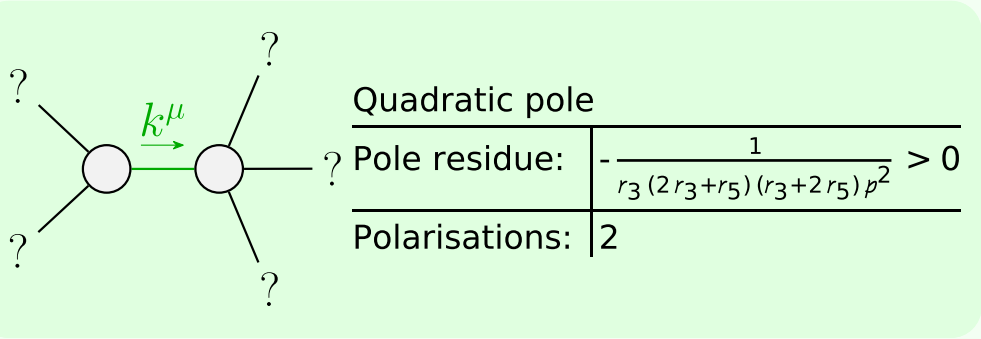
Lagrangian density	
$\begin{aligned} &\frac{2}{3} t_3 \omega_{\kappa \alpha}^{\prime \alpha'} \omega_{\kappa \alpha}^{\kappa} + \frac{2}{3} t_2 \omega_{\kappa \lambda}^{\kappa \lambda} \omega_{\lambda}^{\prime \alpha} + \frac{1}{3} t_2 \omega_{\kappa \lambda}^{\kappa \lambda} \omega_{\lambda}^{\prime \alpha} - \\ &\frac{1}{2} r_3 \partial_{\lambda} \omega_{\kappa}^{\kappa \lambda} \partial^{\prime} \omega_{\lambda}^{\alpha} - r_5 \partial_{\lambda} \omega_{\kappa}^{\kappa \lambda} \partial^{\prime} \omega_{\lambda}^{\alpha} + \frac{2}{3} r_2 \partial^{\beta} \omega_{\kappa}^{\theta \alpha} \partial_{\theta} \omega_{\alpha \beta}^{\kappa} - \\ &\frac{1}{3} r_2 \partial_{\theta} \omega_{\alpha \beta}^{\kappa} \partial_{\kappa} \omega^{\alpha \beta \theta} - \frac{2}{3} r_2 \partial_{\theta} \omega_{\alpha \beta}^{\kappa} \partial_{\kappa} \omega^{\theta \alpha \beta} + \frac{1}{2} r_3 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\theta \kappa \lambda} - \\ &r_5 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\theta \kappa \lambda} - \frac{1}{2} r_3 \partial_{\theta} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\theta \kappa \lambda} + r_5 \partial_{\theta} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\theta \kappa \lambda} - \\ &\frac{1}{2} r_3 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\kappa \lambda \theta} - r_5 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\kappa \lambda \theta} + r_3 \partial_{\theta} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\kappa \lambda \theta} + \\ &2 r_5 \partial_{\theta} \omega_{\lambda}^{\alpha} \partial_{\kappa} \omega^{\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}^{\lambda} - \frac{2}{3} t_3 \omega_{\kappa \alpha}^{\alpha} \partial^{\kappa} f_{\lambda}^{\prime} - \frac{2}{3} t_3 \omega_{\kappa \lambda}^{\lambda} \partial^{\kappa} f_{\lambda}^{\prime} - \frac{4}{3} t_3 \partial^{\alpha} f_{\kappa \alpha} \partial^{\kappa} f_{\lambda}^{\prime} + \\ &\frac{2}{3} t_3 \partial_{\kappa} f_{\lambda}^{\lambda} \partial^{\kappa} f_{\lambda}^{\prime} + \frac{1}{3} t_2 \omega_{\lambda \kappa} \partial^{\kappa} f^{\prime \theta} - \frac{2}{3} t_2 \omega_{\lambda \kappa} \partial^{\kappa} f^{\prime \theta} - \frac{1}{3} t_2 \omega_{\theta \lambda \kappa} \partial^{\kappa} f^{\prime \theta} + \\ &\frac{2}{3} t_2 \omega_{\theta \kappa \lambda} \partial^{\kappa} f^{\prime \theta} + \frac{2}{3} t_3 \omega_{\lambda \alpha}^{\alpha} \partial^{\kappa} f_{\kappa}^{\prime} + \frac{2}{3} t_3 \omega_{\lambda \lambda}^{\lambda} \partial^{\kappa} f_{\kappa}^{\prime} - \frac{1}{6} t_2 \partial^{\alpha} f_{\lambda}^{\lambda} \partial^{\kappa} f_{\lambda \alpha}^{\lambda} - \\ &\frac{1}{6} t_2 \partial_{\kappa} f_{\theta}^{\lambda} \partial^{\kappa} f_{\lambda}^{\theta} + \frac{1}{6} t_2 \partial_{\kappa} f_{\lambda}^{\theta} \partial^{\kappa} f_{\lambda}^{\theta} + \frac{2}{3} t_3 \partial^{\alpha} f_{\lambda \kappa}^{\alpha} \partial^{\kappa} f_{\lambda \kappa}^{\lambda} + \\ &\frac{1}{3} r_2 \partial_{\kappa} \omega^{\alpha \beta \theta} \partial^{\kappa} \omega_{\alpha \beta \theta} + \frac{2}{3} r_2 \partial_{\kappa} \omega^{\theta \alpha \beta} \partial^{\kappa} \omega_{\alpha \beta \theta} - \frac{2}{3} r_2 \partial^{\beta} \omega_{\lambda}^{\alpha \lambda} \partial_{\lambda} \omega_{\alpha \beta}^{\prime} + \\ &\frac{2}{3} r_2 \partial^{\beta} \omega_{\lambda}^{\lambda \alpha} \partial_{\lambda} \omega_{\alpha \beta}^{\prime} - 4 r_3 \partial^{\beta} \omega_{\lambda}^{\lambda \alpha} \partial_{\lambda} \omega_{\alpha \beta}^{\prime} - \frac{1}{2} r_3 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial^{\lambda} \omega^{\theta \kappa}_{\kappa} + \\ &r_5 \partial_{\alpha} \omega_{\lambda}^{\alpha} \partial^{\lambda} \omega^{\theta \kappa}_{\kappa} + \frac{1}{2} r_3 \partial_{\theta} \omega_{\lambda}^{\alpha} \partial^{\lambda} \omega^{\theta \kappa}_{\kappa} - r_5 \partial_{\theta} \omega_{\lambda}^{\alpha} \partial^{\lambda} \omega^{\theta \kappa}_{\kappa} \end{aligned}$	
Added source term:	$f^{\alpha \beta} \tau_{\alpha \beta} + \omega^{\alpha \beta \chi} \sigma_{\alpha \beta \chi}$

$\sigma_{0^+}^{\#1}$	$\tau_{0^+}^{\#1}$	$\tau_{0^+}^{\#2}$	$\sigma_{0^+}^{\#1}$
$\sigma_{0^+}^{\#1} \dagger$	$\frac{1}{(1+2k^2)^2 t_3}$	$-\frac{i \sqrt{2} k}{(1+2k^2)^2 t_3}$	0
$\tau_{0^+}^{\#1} \dagger$	$\frac{i \sqrt{2} k}{(1+2k^2)^2 t_3}$	$\frac{2k^2}{(1+2k^2)^2 t_3}$	0
$\tau_{0^+}^{\#2} \dagger$	0	0	0
$\sigma_{0^+}^{\#1} \dagger$	0	0	$\frac{1}{k^2 r_2 + t_2}$

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

	$\omega_{0^+}^{\#1}$	$f_{0^+}^{\#1}$	$f_{0^+}^{\#2}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1} \dagger$	$t_3$	$-i \sqrt{2} k t_3$	0	0
$f_{0^+}^{\#1} \dagger$	$i \sqrt{2} k t_3$	$2 k^2 t_3$	0	0
$f_{0^+}^{\#2} \dagger$	0	0	0	0
$\omega_{0^-}^{\#1} \dagger$	0	0	0	$k^2 r_2 + t_2$

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



Unitarity conditions	
$r_2 < 0 \&\& r_3 < 0 \&\& r_5 < -\frac{r_3}{2} \&\& t_2 > 0 \parallel r_2 < 0 \&\& r_3 < 0 \&\& r_5 > -2 r_3 \&\& t_2 > 0 \parallel$	
$r_2 < 0 \&\& r_3 > 0 \&\& -2 r_3 < r_5 < -\frac{r_3}{2} \&\& t_2 > 0$	