$\tau_{1}^{\#2}{}_{\alpha}$	0	0	0	$-\frac{6ik}{(3+2k^2)^2t_3}$	$\frac{3i\sqrt{2}k}{(3+2k^2)^2t_3}$	0	$\frac{6k^2}{(3+2k^2)^2t_3}$
$\tau_{1^{-}}^{\#1}\alpha$	0	0	0	0	0	0	0
$\sigma_{1}^{\#2}{}_{lpha}$	0	0	0	$-\frac{3\sqrt{2}}{(3+2k^2)^2t_3}$	$\frac{3}{(3+2k^2)^2t_3}$	0	$-\frac{3i\sqrt{2}k}{(3+2k^2)^2t_3}$
$\sigma_{1^{-}\alpha}^{\#1}$	0	0	0	$\frac{6}{(3+2k^2)^2t_3}$	$-\frac{3\sqrt{2}}{(3+2k^2)^2t_3}$	0	$\frac{6ik}{(3+2k^2)^2t_3}$
$\tau_{1}^{\#1}_{+}\alpha\beta$	$\frac{3i\sqrt{2}k}{(3+k^2)^2t_2}$	$\frac{3ik}{(3+k^2)^2t_2}$	$\frac{3k^2}{(3+k^2)^2t_2}$	0	0	0	0
$\sigma_1^{\#2}{}_+\alpha\beta$	$\frac{3\sqrt{2}}{(3+k^2)^2t_2}$	$\frac{3}{(3+k^2)^2 t_2}$	$-\frac{3ik}{(3+k^2)^2t_2}$	0	0	0	0
$\sigma_1^{\#1}{}_+\alpha\beta$	$\frac{6}{(3+k^2)^2 t_2}$	$\frac{3\sqrt{2}}{(3+k^2)^2t_2}$	$-\frac{3i\sqrt{2}k}{(3+k^2)^2t_2}$	0	0	0	0
	$\sigma_{1}^{\#1} + \alpha \beta$	$\sigma_1^{\#2} + \alpha \beta$	$\tau_1^{\#1} + ^{\alpha\beta}$	$\sigma_{1}^{\#_{1}} + ^{lpha}$	$\sigma_1^{\#2} +^{lpha}$	$\tau_{1}^{\#_{1}} +^{\alpha}$	$\tau_{1}^{#2} + \alpha$

$f_{1^-}^{\#2} \alpha$	0	0	0	$-\frac{2}{3}\bar{l}kt_3$	$\frac{1}{3}\bar{l}\sqrt{2}kt_3$	0	$\frac{2k^2t_3}{3}$
$f_{1^-}^{\#1} \alpha$	0	0	0	0	0	0	0
$\omega_{1}^{\#2}{}_{\alpha}$	0	0	0	$-\frac{\sqrt{2}t_3}{3}$	3 3	0	$-\frac{1}{3}$ i $\sqrt{2}$ $kt_3$
$\omega_{1^{^{-}}\alpha}^{\#1}$	0	0	0	$\frac{2t_3}{3}$	$-\frac{\sqrt{2}\ t_3}{3}$	0	<u>2 i k t 3</u> 3
$f_1^{\#1} \alpha eta$	$\frac{1}{3}\vec{l}\sqrt{2}kt_2$	<u>ikt2</u> 3	$\frac{k^2 t_2}{3}$	0	0	0	0
$\omega_1^{\#2}{}_+\alpha\beta$	$\frac{\sqrt{2} t_2}{3}$	<del>t</del> 2 3	$-\frac{1}{3}$ $\bar{l}$ $kt_2$	0	0	0	0
$\omega_1^{\#1}{}_+\alpha\beta$	$\frac{2t_2}{3}$	$\frac{\sqrt{2} t_2}{3}$	$-\frac{1}{3}\bar{l}\sqrt{2}kt_2$	0	0	0	0
	$\omega_{1}^{\#1} + ^{lphaeta}$	$\omega_{1}^{\#2} +^{lphaeta}$	$f_{1+}^{\#1} +^{\alpha\beta}$	$\omega_{1}^{\#_1} +^\alpha$	$\omega_{1}^{\#2} +^{\alpha}$	$f_{1^{\bar{-}}}^{\#1} \dagger^{\alpha}$	$f_1^{\#2} +^{\alpha}$

									$\omega_2^{*+} \uparrow^{**}$	0	0
			$^{\kappa}f_{\alpha\lambda}^{-}$						$f_{2}^{\sharp 1} \dagger^{\alpha\beta}$	0	0
		۱ م	fy O	+_	+	$\int_{\lambda}^{\theta} +$			$\omega_2^{\#1} \dagger^{\alpha\beta\chi}$	0	0
		$\tau_{\alpha\beta} + \omega^{\alpha\beta\chi}   \sigma_{\alpha\beta\chi} + \tfrac{2}{3}  r_2  \partial^\beta \omega^{\theta\alpha}_{\ \ \kappa}  \partial_\theta \omega_{\alpha\beta}^{\ \ \kappa} - \tfrac{1}{3}  r_2  \partial_\theta \omega_{\alpha\beta}^{\ \ \kappa}  \partial_\kappa \omega^{\alpha\beta\theta} - \frac{1}{3}  \sigma_\beta \omega_{\alpha\beta}^{\ \ \kappa}  \partial_\kappa \omega^{\alpha\beta\theta} - \frac{1}{3}  \sigma_\beta \omega^{\alpha\beta}_{\ \ \alpha\beta}  \partial_\kappa \omega^{\alpha\beta}_{\ \ \alpha\beta}  \partial_\kappa \omega^{\alpha\beta}_{\ \ \ \alpha\beta}  \partial_\kappa \omega^{\alpha\beta}_{\ \ \ \alpha\beta}  \partial_\kappa \omega^{\alpha\beta}_{\ \ \ \ \alpha\beta}  \partial_\kappa \omega^{\alpha\beta}_{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	$\partial_{\theta}\omega_{\alpha\beta}^{\kappa}\partial_{\kappa}\omega^{\theta\alpha\beta} + \tfrac{1}{6}t_2\partial^{\alpha}f_{\theta\kappa}\partial^{\kappa}f_{\theta}^{\theta} - \tfrac{1}{6}t_2\partial^{\alpha}f_{\kappa\theta}\partial^{\kappa}f_{\theta}^{\theta} + \tfrac{1}{6}t_2\partial^{\alpha}f^{\lambda}_{\kappa}\partial^{\kappa}f_{\lambda}^{\rho} - \tfrac{1}{6}t_2\partial^{\alpha}f_{\lambda}^{\rho} - \tfrac{1}{6}t_2\partial^{\alpha}f_{\lambda}^{\rho} + \tfrac{1}{6}t_2\partial^{\alpha}f^{\lambda}_{\kappa}\partial^{\kappa}f_{\lambda}^{\rho} - \tfrac{1}{6}t_2\partial^{\alpha}f_{\lambda}^{\rho} - \tfrac{1}{6}t_2\partial^{\alpha}f_{\lambda}^{$	$\omega_{\kappa\alpha}^{}  \partial^{\kappa} f'_{} - \frac{2}{3}  t_3   \omega_{\kappa\lambda}^{\lambda}   \partial^{\kappa} f'_{} - \frac{4}{3}  t_3  \partial^{\alpha} f_{}  \partial^{\kappa} f'_{} + \frac{2}{3}  t_3  \partial_{\kappa} f^{\lambda}_{\lambda}  \partial^{\kappa} f'_{} +$	$\omega_{l\theta \kappa}  \partial^{\kappa} f^{l\theta} - \frac{2}{3} t_2   \omega_{l\kappa\theta}  \partial^{\kappa} f^{l\theta} - \frac{1}{3} t_2   \omega_{\theta l\kappa}  \partial^{\kappa} f^{l\theta} + \frac{2}{3} t_2   \omega_{\theta \kappa l}   \partial^{\kappa} f^{l\theta} +$	$\omega_{_{I}\alpha}^{\alpha}\partial^{\kappa}f_{_{I}}^{}+\tfrac{2}{3}t_{3}\omega_{_{I}}^{}\partial^{\kappa}f_{_{K}}-\tfrac{1}{6}t_{2}\partial^{\alpha}f_{_{K}}\partial^{\kappa}f_{_{A}I$		_ &			
		3 A	+	$\partial_{\kappa} f$	$\mathcal{E}_{\theta_{X}}$	$\partial_{\kappa} f$	+6	$\mathcal{S}_{lpha}$	Source c	onstrai	nts
		$\mathcal{S}_{\alpha}$	$f_{\alpha}^{\ \ \ \ }$	t3 (	$t_2$	$\frac{1}{6}t_{2}$	$\alpha_{\beta}$	$^{\alpha}\partial_{\lambda}$	SO(3) irr	eps	
	+ ~ `	$r_2  \partial_{\theta}$	$\kappa_{\theta} \partial^{\kappa}$	+ /	+ <sup>2</sup>	, γα	$^{\theta}\partial^{\kappa}u$	$^{\beta}\omega_{\lambda}$	$\tau_{0^{+}}^{\#2} == 0$		
	, ω <sup>K</sup>	γ	$\partial^{\alpha} f$	OK FI	$\partial^{\kappa} f^{I} \theta$	$_{\kappa}^{\partial^{\kappa}f}$	$\omega^{\alpha \beta}$	r2 01	Solution So	$\sigma_{0}^{\#1} == 0$	)
	$\varepsilon_{\kappa\lambda}$	$^{artheta}$	$-\frac{1}{6}t_2$	$^{ \alpha}f_{\kappalpha}$	$\omega_{\theta IK}$	$\partial_{\alpha} f^{\lambda}$	$r_2 \partial_{\kappa}$	+ 3	$\tau_1^{\#2\alpha}$ - $ik$	$\sigma_{1}^{\#1}{}^{\alpha} ==$	0
	$\frac{1}{3}t_2$	$\theta^{\alpha}_{\kappa}\partial_{\kappa}$	$^{\kappa}f_{\alpha}^{\theta}$	$\frac{4}{3}t_{3}c$	$\frac{1}{3}t_{2}$	$-\frac{1}{6}t_2$	+ + ∞ I ⊔	$^{\lambda}\omega_{lphaeta}$	$\tau_1^{\#_1\alpha} == 0$		
	ν, ' <sub>Α</sub>	$\omega^{eta}$	$f_{\theta \kappa} \partial$	kf1 -	- <sub>θ1</sub>	$f'_{K}$	$\partial^{\kappa} f_{\lambda}$	υ, αλ δ	$\sigma_1^{\#1}\alpha + 2$	σ <sub>1</sub> <sup>#2α</sup> =:	
	, KA ,	+ 2 /2	$t_2  \partial^{\alpha}$	e YX	IKO OK	ν, λ έ	$\partial^{\alpha} f^{\lambda}$	$r_2  \partial^{eta} \iota$	$\tau_{1}^{\#1\alpha\beta}+i$	$i k \sigma_{1}^{\#1} \alpha_{1}$	β == <b>(</b>
sity	$\frac{2}{3}t_2u$	$\tau_{\alpha \beta \chi}^{-}$	$^{t\beta}$ + $^{\frac{1}{6}}$	$t_3~\omega$	$t_2 \omega$	$\frac{2}{3}t_{3}$	$\frac{2}{3}t_3$	39 - 2 /	$\sigma_{1}^{\#1\alpha\beta} ==$	$\sigma_{1}^{\#2\alpha\beta}$	
rangian density	$\omega_{i}^{\alpha \prime} \omega_{\kappa \alpha}^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	$\alpha \beta \chi$	$^{ ho}_{\kappa}\omega^{ heta_{c}}$	$f'_{1} = \frac{2}{3}$	10 _ 2	ر +	$\partial_{\kappa} f^{\lambda}_{ \   \theta} \partial^{\kappa} f_{\lambda}^{ \   \theta} + \tfrac{2}{3} t_{3}  \partial^{\alpha} f^{\lambda}_{ \   \alpha} \partial^{\kappa} f_{\lambda \kappa} + \tfrac{1}{3}  r_{2}  \partial_{\kappa} \omega^{\alpha \beta \theta}  \partial^{\kappa} \omega_{\alpha \beta \theta} +$	$\partial_{\kappa}\omega^{\thetalphaeta}\partial^{\kappa}\omega_{lphaeta heta}^{-rac{2}{3}}r_{2}\partial^{eta}\omega_{a}^{\lambda}\partial_{\lambda}\omega_{lphaeta}^{\prime}^{\prime}+rac{2}{3}r_{2}\partial^{eta}\omega_{\lambda}^{\lambda}\partial_{\lambda}\omega_{lphaeta}^{\prime}^{\prime}$	$\sigma_{1}^{\#1\alpha} + 2$ $\tau_{1}^{\#1\alpha\beta} + i$ $\sigma_{1}^{\#1\alpha\beta} = 0$ $\sigma_{2}^{\#1\alpha\beta} = 0$ $\tau_{2}^{\#1\alpha\beta} = 0$	= 0	
gian	3,	3+ E	$^{\prime}{}_{\alpha\beta}{}^{\kappa}\hat{c}$	$\alpha \alpha_{\lambda}$	K OK	$\alpha \partial^{\kappa} j$	$^{\lambda}{}_{\theta}\partial^{\kappa}{}_{j}$	$^{eta lpha eta}$	$\tau_2^{\#1\alpha\beta} ==$	0	
ran	3,	$ au_{lpha eta}$	$\partial_{\theta} \alpha$	3	$\mathcal{S}_{,\epsilon}$	3,	$\partial_{\kappa} f$	$\partial_{\kappa} \mu$	$\sigma_{2+}^{\#1}{}^{\alpha\beta} ==$	0	

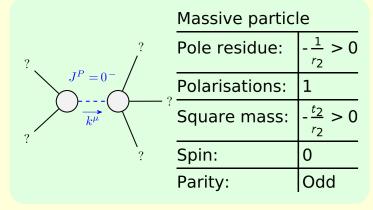
	$\omega_{2^{+}\alpha\beta}^{\#1}$	$f_{2}^{\#1}{}_{\alpha\beta}$	$\omega_{2^{-}\alpha\beta\chi}^{\#1}$
$\omega_{2}^{\#1} \dagger^{\alpha\beta}$	0	0	0
$f_{2+}^{\#1}\dagger^{\alpha\beta}$	0	0	0
$\omega_2^{\#1} \dagger^{\alpha\beta\chi}$	0	0	0

SO(3) irreps	#
$\tau_{0+}^{\#2} == 0$	1
$\tau_{0^{+}}^{\#1} - 2  i  k  \sigma_{0^{+}}^{\#1} == 0$	1
$\tau_{1}^{\#2\alpha} - i k \sigma_{1}^{\#1\alpha} == 0$	3
$\tau_1^{\#1}{}^{\alpha} == 0$	3
$\sigma_{1}^{\#1\alpha} + 2 \sigma_{1}^{\#2\alpha} == 0$	3
$\tau_{1+}^{\#1\alpha\beta} + i k \sigma_{1+}^{\#1\alpha\beta} == 0$	3
$\sigma_{1+}^{\#1\alpha\beta} == \sigma_{1+}^{\#2\alpha\beta}$	3
$\sigma_2^{\#1\alpha\beta\chi} == 0$	5
$\tau_{2+}^{\#1}{}^{\alpha\beta} == 0$	5
$\sigma_{2+}^{\#1\alpha\beta} == 0$	5
Total #:	32

	_	$\omega_{0^+}^{\sharp 1}$	$f_{0+}^{\#1}$	$f_{0}^{#2}$	$\omega_0^{\#1}$
C	$\omega_{0^{+}}^{#1}$ †	$t_3$	$-i \sqrt{2} kt_3$	0	0
	$f_{0+}^{#1}$ †	$i\sqrt{2} kt_3$	$2k^2t_3$	0	0
	$f_{0}^{#2}$ †	0	0	0	0
(	$\omega_{0^{-}}^{\#1}$ †	0	0	0	$k^2 r_2 + t_2$

_				
$\sigma_{0}^{\#1}$	0	0	0	$\frac{1}{k^2 r_2 + t_2}$
$\tau_0^{\#2}$	0	0 0		0
$\tau_0^{\#1}$	$-\frac{i\sqrt{2}k}{(1+2k^2)^2t_3}$	$\frac{2k^2}{(1+2k^2)^2t_3}$	0	0
$\sigma_0^{\#1}$	$\frac{1}{(1+2k^2)^2t_3}$	$\frac{i\sqrt{2}k}{(1+2k^2)^2t_3}$	0	0
	$\sigma_{0}^{\#1}$ †	$\tau_{0}^{\#1}$ +	$\tau_{0}^{\#2}$ †	$\sigma_{0}^{\#1} +$

$\sigma_{2}^{\#1}$ $\sigma_{2}^{\#1}$ $\sigma_{2}^{\#1}$ $\sigma_{2}^{\#1}$ $\sigma_{3}^{\#1}$	0	0	0
$\tau_2^{\#1}_+\alpha\beta$	0	0	0
$\sigma_{2}^{\#1}{}_{\alpha\beta}$	0	0	0
	$\sigma_{2}^{\#1} + \alpha \beta$	$\tau_2^{\#1} + ^{\alpha\beta}$	$\sigma_2^{\#1} +^{\alpha\beta\chi}$



Unitarity conditions  $r_2 < 0 \&\& t_2 > 0$ 

(No massless particles)