PSALTer results panel

 $6\ \mathcal{B}^{\alpha}\ \partial_{\alpha}f^{\beta}\ + 6\ \mathcal{B}^{\alpha}\ \partial_{\beta}f^{\alpha}\ - 2\ \mathcal{G}^{\chi}_{\alpha\,\chi}\ \partial_{\beta}f^{\alpha\beta}\ + 2\ \mathcal{G}^{\chi}_{\beta\,\chi}\ \partial^{\beta}f^{\alpha}\ - \partial_{\beta}f^{\chi}\ \partial^{\beta}f^{\alpha}\ - \partial_{\beta}f^{\alpha\beta}\partial_{\chi}f^{\alpha}\ + 2\ \partial^{\beta}f^{\alpha}\ \partial_{\chi}f^{\beta}\) +$

 $\mathcal{S} == \iiint (\phi \ \rho + \ \sigma^{ab\chi} \ \mathcal{A}_{ab\chi} + \ \tau^{ab} \ f_{a\beta} + \mathcal{T}^a \ \mathcal{B}_a - \frac{1}{18} \ \mathcal{N} (\mathcal{A}^{ab}{}^a \ \mathcal{A}_{\beta\chi}^{\ \chi} + 6 \ \mathcal{A}_{\alpha\beta}^{\ \beta} \ \mathcal{B}^a - 9 \ \mathcal{B}_a \ \mathcal{B}^a - 9 \ \mathcal{B}^a \ \mathcal{B}^a - 9 \ \mathcal{B}^a - 9 \ \mathcal{B}^a \ \mathcal{B}^a - 9 \ \mathcal{B}$

Wave operator and propagator

	${}^{1^+}\mathcal{F}^{\ }_{\alpha\beta}$	$^{1^{+}}\mathcal{H}^{^{\perp}}{}_{\alpha\beta}$	$^{1^{+}}f^{\parallel}_{\alpha\beta}$	$^1\mathcal{B}_{lpha}$	$^{1\cdot}\mathcal{A}^{\parallel}{}_{lpha}$	$^1\mathcal{A}^{\scriptscriptstyle\perp}_{lpha}$	$^{1}f^{\parallel}_{\alpha}$	1 $f^{\perp}_{ \alpha}$
$^{1.}^{+}\mathcal{H}^{\parallel}$ $\dagger^{^{lphaeta}}$	$\frac{1}{6} \left(-6 \lambda. + 6 k^2 \left(2 r. + r. \right) + t. + 4 t. \right)$	$-\frac{6\lambda + t_1 - 2t_1}{3\sqrt{2}}$	$-\frac{i \ k(6 \ \lambda. + t_1 - 2 \ t_1)}{3 \ \sqrt{2}}$	0	0	0 0		0
$^{1^{+}}\mathcal{A}^{\scriptscriptstyle \perp}\dagger^{^{lphaeta}}$	$-\frac{6 \lambda + t \cdot -2 t \cdot \frac{1}{2}}{3 \sqrt{2}}$	$\frac{t_1+t_2}{3}$	$\frac{1}{3} i k(t_1 + t_1)$	0	0	0 0		0
$1^+f^{\parallel} \uparrow^{\alpha\beta}$	$\frac{i k(6 \lambda + t, -2 t_1)}{3 \sqrt{2}}$	$-\frac{1}{3}i k(t_1 + t_2)$	$\frac{1}{3}k^2(t_1+t_2)$	0	0	0 0		0
$^{1}\mathcal{B}\dagger^{lpha}$	0	0	þ	$-6 \lambda. + \frac{v}{2} + 2 k^2 (2(r_1 + r_2 + r_3) + \xi.)$	$\frac{1}{6} \left(-12 \lambda + v. + 4 k^2 \left(3 \left(r. + r. + r. \right) + \xi. \right) \right)$	$\frac{12 \lambda \cdot v \cdot 4 k^2 \xi}{6 \sqrt{2}}$	0	$-\frac{1}{6} i \ k(-12 \lambda. + v. + 4 k^2 \xi.)$
$^{1}\mathcal{A}^{\parallel}$ † $^{\alpha}$	0	0	0	$\frac{1}{6} \left(-12 \lambda. + v. + 4 k^2 \left(3 (r_1 + r_2 + r_3) + \xi. \right) \right)$	$\frac{1}{18} \left(-6 \lambda + v + 3 t + 2 k^2 \left(9(r + r + r) + 2 \xi \right) \right)$	$\frac{24 \lambda - v + 6 t - 4 k^2 \xi}{18 \sqrt{2}}$	0	$-\frac{1}{18} i \ k(-24 \lambda. + v6 t_1 + 4 k^2 \xi.)$
$^1\mathcal{R}^{\scriptscriptstyle\perp}\dagger^{\scriptscriptstylelpha}$	0	0	0	$\frac{12 \lambda - v - 4 k^2 \xi}{6 \sqrt{2}}$	$\frac{24 \lambda \cdot v + 6 t \cdot 4 k^2 \xi}{18 \sqrt{2}}$	$\frac{1}{36} (12 \lambda. + v. + 12 t. + 4 k^2 \xi.)$	0	$\frac{i k(12 \lambda + v + 12 t + 4 k^2 \xi)}{18 \sqrt{2}}$
$^{1}f^{\parallel}\dagger^{\alpha}$	0	0	þ	0	0	0 0		0
$^{1}f^{\scriptscriptstyle \perp}\dagger^{\scriptscriptstyle \alpha}$	0	0	0	$\frac{1}{6}i \ k(-12 \lambda. + v. + 4 k^2 \xi.)$	$\frac{1}{18} i \ k(-24 \lambda. + v6 t. +4 k^2 \xi.)$	$\frac{i k(12 \lambda + v + 12 t_1 + 4 k^2 \xi)}{18 \sqrt{2}}$	0	$\frac{1}{18} k^2 (12 \lambda. + v. + 12 t. + 4 k^2 \xi.)$

				0 72			10 12						
0	0	þ		0			0			0	0		
0	0	0	$\frac{1}{6}i$	k(-12 λ. + v. +4	k ² ξ.)	$\frac{1}{18} i k(-24)$	۱. + <i>v</i> 6	$t_1 + 4 k^2 \xi$.)	i k(12	$2\lambda + v + 12t_1 + 4$ $18\sqrt{2}$	l k ² ξ.)	0	$\frac{1}{18} k^2 (1$
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, I													
+ θ ^χ f ^{αβ}						-1	0.+	-1		-1 -	-1		
$ \begin{array}{l} \alpha \beta \beta \beta \alpha \\ \alpha \lambda f \beta^{X} - \\ \beta \beta \beta \end{array} $ $ \begin{array}{l} \lambda f \alpha \beta \beta \beta \\ \lambda f \alpha \beta \beta \end{array} $ $ \begin{array}{l} \lambda f \alpha \beta \beta \beta \\ \lambda f \alpha \beta \beta$						0,*B	0,+		. ±2. \	$0^+ f^{\parallel}$ $i \ k(12 \lambda - v.)$	0,+ f [±]	⁰ A	
$f^{\alpha\beta} \partial_{\beta} \mathcal{B}_{\alpha} - f^{\alpha}_{\alpha} \partial_{x} f^{x} + f^{\alpha}_{\alpha} \partial_{x} f^{x} + \partial_{x} f^{\alpha\beta}) + g^{\beta} - \partial_{\alpha} f^{\beta} + \partial_{x} f^{\alpha\beta}) + g^{\beta} - \partial_{\alpha} f^{\beta} + \partial_{x} f^{\alpha\beta})$	δ)+		, a () + (a () + (a ()) + () + () () + () () + () ()		0 ⁺ B† -6 λ	$+\frac{v}{2}+12 k^2 (r_1-r_1)$	+2 r _.) 0	$\frac{12 \lambda - v \cdot 24 k^2 (r_1 - r_2)}{2 \sqrt{6}}$	3 4	2 √3	0	0	
$\sum_{x,\chi} \partial_{\beta} f^{\alpha\beta} - 24 f^{\alpha\beta} \partial_{\beta} \mathcal{B}_{\alpha} + g^{\beta\beta} \partial_{\gamma} f^{\alpha} + g^{\beta\beta} f^{\alpha} \partial_{\gamma} f^{\beta} + g^{\beta\beta} \partial_{\gamma} f^{\alpha} + g^{\beta\beta} \partial_{\gamma} f^{\alpha\beta} + g^{\beta\beta} \partial_{\gamma} f^{\alpha\beta} \partial_{\gamma} f^{\alpha\beta$	$_{\alpha}^{i}\partial_{\delta}\mathcal{A}_{\chi\beta}^{\delta})+$		$\partial_{\sigma}\partial_{\chi} t$		0 ⁺ φ†	0 ()	0	0		0	0	
$\int_{\beta} f^{\alpha\beta}$ $\int_{\beta} f^{\alpha\beta}$ $\int_{\beta} f^{\alpha\beta}$ $\int_{\beta} f^{\alpha\beta}$	£ +	f x -	x f		^{0,+} <i>Я</i> ∥†	$\frac{12 \lambda - v - 24 k^2 (r_1 - r_3 + 2 r_4)}{r_1}$		$-\lambda + \frac{v}{12} + 2 k^2 (r_1)$	-r. +2 r.)	i k(12 λ - v .)	0	0	
× × 6) × × × × × × × × × × × × × × × ×	2	$\int_{\delta}^{\delta} +6 \ \partial^{\beta} \mathcal{B}^{\alpha} \partial_{\chi} \partial_{\alpha} f^{\chi}$	ο _θ ο +	ا _		2 √6 i k(12 λν.)		i k(12 λv		6 √2 k² v.			
$\partial_{\rho}\mathcal{A}^{\alpha\beta}_{\alpha}$ -4 \mathcal{A}_{α}^{x} $\chi^{\alpha\beta}_{\beta}$ -2 $\partial_{\beta}f^{\alpha\beta}_{\alpha}$ $f^{\alpha\beta}$ +12 $\mathcal{A}_{\alpha\chi}$ β $\partial^{x}f^{\alpha\beta}$ +2 $\mathcal{A}_{\alpha\beta}$ $\partial^{\beta}f^{\alpha}_{\alpha}$ $\partial_{\chi}f^{\beta}$ +2 +2 $\partial^{x}f^{\alpha\beta}$ + \mathcal{A}_{α}^{x}	χ χ χ χ χ χ χ χ χ χ χ χ χ χ χ χ χ χ χ	o ^{ls} B°°	x x x	$^{5}\mathcal{A}^{lphaeta)}$	⁰⁺ f †	2 √3	C	- 6 √2	<u>. </u>	6	0	0	
$\begin{cases} \alpha^{\beta} = -\frac{1}{3}x - 2 \\ +12 \\ +12 \\ +12 \\ -\frac{1}{3}x - 2 \\ +\frac{1}{3}x - 2 \\ -\frac{1}{3}x - 2 \\ $	χ δος 4 Θ ^ε ,	9 + 9	, 9°90	$\frac{x}{d} \frac{\delta a}{t}$	0,+f±+)	0	0		0	0	
$\begin{array}{l} {}_{\chi} -12 \; \partial_{\beta}\mathcal{A}^{\alpha\beta}_{\alpha} -4 \; \mathcal{A}_{\alpha\chi}^{\chi} \; \partial_{\beta}f^{\alpha\beta} -24 \; f^{\alpha\beta} \; \partial_{\beta}\mathcal{B}_{\alpha} \\ f_{\alpha}^{\alpha} \; \partial_{\chi}\mathcal{A}^{\beta\chi}_{\beta} -2 \; \partial_{\beta}f^{\alpha\beta} \partial_{\chi}f_{\alpha}^{\chi} +4 \; \partial^{\beta}f_{\alpha}^{\alpha} \; \partial_{\chi}f_{\beta}^{\chi} \\ f_{\beta\alpha} \; \partial^{\chi}f^{\alpha\beta} +12 \; \mathcal{A}_{\alpha\chi\beta} \left(\mathcal{A}^{\alpha\beta\lambda} +\partial^{\chi}f^{\alpha\beta} \right) +\\ a^{\alpha\beta\chi} \; +\partial^{\chi}f^{\alpha\beta}) +2 \; \mathcal{A}_{\alpha\beta\chi} \left(\mathcal{A}^{\alpha\beta\lambda} +2 \; \partial^{\chi}f^{\alpha\beta} \right) +\\ {}_{\alpha\chi}^{\chi} +2 \; \partial^{\beta}f_{\alpha}^{\alpha} \; \partial_{\chi}f_{\beta}^{\chi} +2 \; \mathcal{A}_{\beta\alpha} \left(\mathcal{A}^{\alpha\beta\gamma} +2 \; \partial^{\chi}f^{\alpha\beta} \right) \\ \mathcal{A}^{\alpha\beta} \; +2 \; \partial^{\chi}f^{\alpha\beta}) +\mathcal{A}_{\alpha\chi\beta} \left(\mathcal{A}^{\alpha\beta\gamma} +4 \; \partial^{\chi}f^{\alpha\beta} \right) \\ \mathcal{A}^{\alpha} \; \lambda_{\alpha} +4 \; \partial^{\beta}\mathcal{B}^{\alpha}\partial_{\alpha}\mathcal{A}_{\alpha}^{\chi} +\\ \mathcal{A}^{\alpha} \; \lambda_{\alpha}^{\chi} +4 \; \partial^{\beta}\mathcal{B}^{\alpha}\partial_{\alpha}\mathcal{A}_{\alpha}^{\chi} +\\ \end{array}$	$\hat{a}^{\alpha}\partial_{\alpha}\mathcal{B}^{\dot{\alpha}}_{\dot{\beta}\dot{\lambda}}+\partial_{\alpha}\mathcal{A}^{abk}\partial_{\alpha}\mathcal{A}^{\dot{\beta}}_{\dot{\lambda}}-2\partial^{\kappa}\mathcal{A}^{ab}$ $4\partial^{\beta}\mathcal{B}^{a}\partial_{\kappa}\mathcal{A}^{\dot{\alpha}}_{\dot{\alpha}}+4\partial^{\beta}\mathcal{B}^{a}\partial_{\kappa}\mathcal{A}^{\dot{\alpha}}_{\dot{\beta}}+$	+ 12	$ \sum_{\alpha'} 2 \partial_{\alpha} \mathcal{A}_{\chi}^{\ \ \delta} \partial^{\alpha'} \partial_{\beta} f^{\mu\rho} - \partial_{\beta} \partial^{\beta'} f^{\mu\rho} \partial_{\delta} \partial_{\alpha} f_{\chi}^{\ \ \ \prime} + \partial_{\beta} \partial^{\gamma} f^{\mu\rho} \partial_{\delta} \partial_{\gamma} f_{\alpha}^{\ \ \prime}) + \\ \partial_{\gamma} - 2 \partial_{\delta} \mathcal{A}_{\alpha\chi}^{\ \ \ \ \ \ \ \ \ \ \ } \partial_{\delta} \mathcal{A}_{\alpha\chi}^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ } \partial_{\delta} \partial_{\gamma} f_{\alpha\beta}^{\ \ \ \ \ \ \ \ \ \ \ \ \ } + \partial_{\beta} \partial_{\gamma} f_{\alpha\beta}^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ } + \partial_{\beta} \partial_{\gamma} f_{\alpha\beta}^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	д ^в В ^а + +2 д _в Я _{х ба} б d y d x d t	⁰ ℋ †	0 (0	0	0		0	$-2\lambda_{\cdot}+k^2$	r . $+t$. $\frac{1}{2}$
$f^{ab} \partial_{\mu} \mathcal{A}_{a,\chi}^{x} - 12.$ $\mathcal{A}_{a,\mu}^{x} + 12 f^{a}_{a} \partial_{\nu}^{x}$ $f^{ab} + 3 \partial_{\chi} f_{\mu a} \partial^{\lambda}$ $f \mathcal{A}_{\alpha,\chi} \rho (\mathcal{A}^{ab\chi} + 2 \partial_{\mu} f_{\mu a} \partial_{\lambda} f_{\mu a} \partial_{\lambda} f_{\mu a} \partial_{\lambda} f_{\mu a}^{x} + 2 \partial_{\mu} g^{a} \partial_{\lambda} f_{\mu a}^{x} \partial_{\lambda} f_{\mu a}^{x} + 2 \partial_{\mu} g^{a} \partial_{\nu} f_{\mu a}^{x} \partial_{\nu} f_{\mu$, x + c + c + c + c + c + c + c + c + c +	$({}^{\alpha}_{\delta}\partial_{\delta}\mathcal{A}_{\chi}^{\delta}_{\delta})+$ $\partial_{\beta}\partial^{\chi}f^{\alpha\beta}\partial_{\chi}\mathcal{A}_{\delta}$	th - θ _t th - δ _t χ _θ - χ _θ	$^{2}\partial^{\beta}\mathcal{B}^{\beta}$ $^{3}\chi + 2$ $^{3}\chi + 2$		${}^{0^+}\mathcal{J}$	^{0,+} ρ	${}^{0^+}\sigma^{\parallel}$			0,+ _T		0+τ-
$\begin{array}{l} (ab) \partial_{\mu} A_{\alpha X} - 1 \\ A_{\alpha X} + 12 F_{\alpha} \\ A_{\alpha X} + 12 A_{\alpha X} \\ A_{\alpha X} \partial_{\mu} F_{\beta \alpha} \\ A_{\alpha X} \partial_{\mu} F_{\alpha X} + A_{\alpha X} \partial_{\mu} F_{\alpha X} \\ A_{\alpha B_{\alpha}} \partial_{\mu} f_{\alpha} X + A_{\alpha B_{\alpha}} (\mathcal{A}^{d}) \end{array}$	88°6	, 36.5 36.9×	KOSL OS SI SI SI SI SI SI SI SI SI SI SI SI SI S	θβΒ _ε β¶ ^{αβ}	0+J+ 49(-	6 v.	0	√6 v.			3(12 λ		<u></u> 0
$ \begin{array}{l} (12 \ f^{a\beta} \ \partial_{\beta} \mathcal{A}_{a\chi}^{\chi} \\ \partial_{\chi} \mathcal{A}_{a\chi}^{\chi} + 12 \\ \beta \partial^{\gamma} f^{a\beta} + 3 \partial_{\chi} f^{\beta} \\ -4 \ \mathcal{A}_{a\chi} \beta (\mathcal{A}^{\beta}) \\ \epsilon_{a}^{\alpha} - \partial_{\beta} f^{\alpha\beta} \partial_{\chi} f_{\zeta} \\ \chi f^{a\beta} + \mathcal{A}_{a\beta\chi} (\partial_{\gamma}^{\beta}) \partial_{\chi} f_{\zeta} \\ \mathcal{B}^{\alpha} + 4 \partial^{\beta} \mathcal{B}^{\alpha} \partial_{\gamma} \partial_$	$q^{\alpha\beta}_{\alpha}$ $^{\alpha}$ $^{\alpha}$ $^{+}$	- ع م + 2 ع	το ο ο σ τας β + ο β	$a^{\alpha} + 6$ $a^{\alpha} \chi^{\beta}$		$12 \lambda^2 + \lambda \cdot v + 2 k^2 v \cdot (r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot r \cdot r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot r \cdot r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot r \cdot r \cdot r \cdot r \cdot r \cdot + 2 k^2 v \cdot (r \cdot r \cdot $	4	$49(-12 \ \lambda^{2} + \lambda \ \nu + 2 \ k^{2} \ \nu \ (n)$	1 3 4	7 k (-12 λ. ² +λ. ι			"
$g^{\alpha} + 12 f^{\alpha\beta}$ $f^{\alpha\beta} \partial_{\lambda} \mathcal{A}_{\alpha\beta}$ $\partial_{\lambda} f_{\alpha\beta} \partial^{\lambda} f^{\alpha\beta}$ $\partial^{\lambda} f^{\alpha\beta} - 4 \mathcal{A}_{\alpha\gamma}$ $\partial^{\lambda} f^{\alpha\beta} - 4 \mathcal{A}_{\alpha\gamma}$ $\partial^{\lambda} f^{\alpha\beta} - 3 \partial^{\beta} f^{\alpha\beta} + 3 \partial^{\beta} g^{\alpha\beta} + 4 \partial^{\beta} g^{$	2 9×5 2 2 3 5 2 3 5 2 5 2 5 5 5 5 5 5 5 5 5	9, 9, 9, 9, 9, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,	800 5 80 80 80 80 80 80 80 80 80 80 80 80 80	ු ව ⁸ පි + ව ₈ S)[t, x	^{0,+} ρ†	0 0 √6 v.		0 v.			0 i	0	
$\frac{\partial_{\alpha} \beta}{\partial x}$ +3 $\frac{112}{3}$ $\frac{\partial_{\beta} f}{\partial x}$ $\frac{\partial_{\beta} f}{\partial x}$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$8 \sigma_a \mathcal{B}^a \left(2 \partial_{\mu} \mathcal{B}^a + \partial_{\lambda} \mathcal{A}^{a\beta_{\kappa}} \right)^{-} \partial_{\mu} \mathcal{A}^{\kappa_{\kappa}}_{\chi^{\sigma}} \partial^{\kappa} \mathcal{A}^{a\beta_{\kappa}}_{\alpha} - \partial_{\kappa} \mathcal{A}^{a\beta_{\kappa}}_{\beta^{\sigma}} \partial^{\kappa} \mathcal{A}^{a\beta_{\kappa}}_{\gamma^{\sigma}} \right) + \\ \partial_{\alpha} \mathcal{A}^{a\beta_{\kappa}} \partial_{\sigma} \mathcal{B}^{\beta_{\kappa}}_{\kappa} + 2 \partial^{\kappa} \mathcal{A}^{a\beta_{\kappa}}_{\alpha} \partial_{\sigma} \mathcal{B}^{\beta_{\kappa}}_{\chi^{\sigma}} - \partial_{\alpha} \mathcal{A}^{a\beta_{\kappa}}_{\alpha^{\beta_{\kappa}}} \partial_{\sigma} \mathcal{A}^{\beta_{\kappa}}_{\chi^{\beta_{\kappa}}} + 2 \partial^{\kappa} \mathcal{A}^{a\beta}_{\alpha^{\beta_{\kappa}}} \partial_{\sigma} \mathcal{A}^{\beta_{\kappa}}_{\kappa^{\beta_{\kappa}}} \right) + \\ \mathcal{E} \left(6 \partial_{\alpha} \mathcal{A}^{\chi_{\kappa}}_{\chi^{\kappa}} \partial^{\beta} \mathcal{B}^{a} - 9 \partial_{\alpha} \mathcal{B}_{\rho}^{\beta_{\kappa}} \partial^{\beta} \mathcal{B}^{a} - 6 \partial_{\rho} \mathcal{A}^{\chi_{\kappa}}_{\alpha^{\kappa}} \partial^{\beta} \mathcal{B}^{a} + 9 \partial_{\rho} \mathcal{B}_{\alpha}^{a} \partial^{\beta} \mathcal{B}^{a} + 2 \partial_{\rho} \partial^{\gamma} f^{a\beta}_{\alpha^{\beta}} \partial^{\gamma} \mathcal{A}^{\alpha_{\kappa}}_{\kappa^{\beta_{\kappa}}} \right) + \\ \mathcal{E} \left(6 \partial_{\alpha} \mathcal{A}^{\chi_{\kappa}}_{\chi^{\kappa}} \partial^{\beta} \mathcal{B}^{a} - 9 \partial_{\alpha} \mathcal{B}_{\rho}^{\beta_{\kappa}} \partial^{\beta} \mathcal{B}^{a} - 6 \partial_{\rho} \mathcal{A}^{\chi_{\kappa}}_{\kappa^{\beta_{\kappa}}} \partial^{\beta} \mathcal{B}^{a} + 9 \partial_{\rho} \mathcal{B}^{a}_{\alpha^{\kappa}} \partial^{\beta} \mathcal{B}^{a} + 2 \partial_{\rho} \mathcal{B}^{a}_{\alpha^{\kappa}} \partial^{\beta} \mathcal{B}^{a} \right) + \\ \mathcal{E} \left(6 \partial_{\alpha} \mathcal{A}^{\chi_{\kappa}}_{\chi^{\kappa}} \partial^{\beta} \mathcal{B}^{a} - 9 \partial_{\alpha} \mathcal{B}^{\beta_{\kappa}}_{\rho^{\beta}} \partial^{\beta} \mathcal{B}^{a} - 6 \partial_{\rho} \mathcal{B}^{\chi_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} \right) + \\ \mathcal{E} \left(6 \partial_{\alpha} \mathcal{A}^{\chi_{\kappa}}_{\chi^{\kappa}} \partial^{\beta} \mathcal{B}^{a} - 9 \partial_{\alpha} \mathcal{B}^{\beta_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} - 6 \partial_{\rho} \mathcal{B}^{\alpha_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} \right) + \\ \mathcal{E} \left(6 \partial_{\alpha} \mathcal{A}^{\chi_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} - 9 \partial_{\alpha} \mathcal{B}^{\beta_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} - 6 \partial_{\alpha} \mathcal{B}^{\gamma_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} \right) + \\ \mathcal{E} \left(6 \partial_{\alpha} \mathcal{A}^{\chi_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} - 9 \partial_{\alpha} \mathcal{B}^{\beta_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{a} - 6 \partial_{\alpha} \mathcal{B}^{\gamma_{\kappa}}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{\alpha}_{\rho^{\gamma}} \partial^{\beta} \mathcal{B}^{\alpha}_{\rho^{$	$\begin{aligned} &6\partial^l\mathcal{B}^u \delta_l \partial_b f_\alpha^{} X + \partial_b \mathcal{A}_{\chi^0}^{} \delta^l \mathcal{A}^{alp}_{} - \partial_{\chi} \mathcal{A}_{\beta^0}^{} \delta^l \mathcal{A}^{alp}_{} - 2 \partial_a \mathcal{A}_{\chi^0}^{} \delta^l \partial_b f^{alp}_{} - \partial_\beta \partial^l f^{alp}_{} \\ &\frac{1}{3} r_2 (4 \partial_\beta \mathcal{A}_{\alpha_\ell} \delta^{-2} \partial_\beta \mathcal{A}_{ab_\ell} + 2 \partial_\beta \mathcal{A}_{ab_\delta} + \partial_\delta \mathcal{A}_{ab_\ell} - 2 \partial_\delta \mathcal{A}_{\alpha_\ell} \beta^l \partial^l \mathcal{A}^{ab_\ell} \\ &+ 4 r_2 (\partial_a \mathcal{B}^u \partial_\beta \mathcal{B}^l - 2 \partial_\alpha \mathcal{A}_{\beta^0} \lambda^l \partial_\beta \mathcal{B}^l + 2 \partial_a \mathcal{B}_\beta \partial^l \mathcal{B}^a + 2 \partial^l \mathcal{B}^u \partial_\beta \mathcal{A}_{\beta^0} \lambda^l \partial_\beta \mathcal{A}_{\alpha^0 b^0}) + 4 d_\beta \mathcal{A}_{\beta^0} \lambda^l \partial_\beta \mathcal{A}_{\alpha^0 b^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0}) + 4 d_\beta \mathcal{A}_{\beta^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0}) + 4 d_\beta \mathcal{A}_{\beta^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0}) + 4 d_\beta \mathcal{A}_{\beta^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0}) + 4 d_\beta \mathcal{A}_{\beta^0} \partial_\beta \mathcal{A}_{\alpha^0 b^0} \partial_\beta \mathcal{A}_$	$\frac{1}{3}r_1(6\partial_\alpha B^\alpha\partial_\beta B^\beta - 6\partial_\alpha \mathcal{F}_{\beta,\chi}^{X}\partial^\beta B^\alpha + 6\partial_\alpha B_\beta\partial^\beta B^\alpha - 6\partial_\beta \mathcal{F}_{\alpha,\chi}^{X}\partial^\beta B^\alpha + 6\partial_\beta B_\alpha\partial^\beta B^\alpha + 6\partial^\beta B^\alpha\partial_\gamma \mathcal{F}_{\beta,\chi}^{X} - 2\partial_\beta \mathcal{F}_{\alpha,\chi}^{X}\partial^\beta \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{\alpha,\chi}^{A\beta} + \partial_\beta \mathcal{F}_{\alpha,\chi}^{A\beta}\partial^\gamma \mathcal{F}_{$	0, ⁺ σ † 588	$(\lambda^2 - 49 \ v. \ (\lambda + 2 \ k^2 \ (r_1 - r_2 + 2 \ r_1)^2)$	<u>,)))</u> 0	$49(-12 \lambda^2 + \lambda \cdot v + 2 k^2 v \cdot (r)$	-r.+2r.)) 1 3 4	7 √2 k (λ	+ 2 x2 v. (r	13 4)	0
$a^{\alpha} B^{\alpha} - 36$ $c^{\kappa} \partial^{\beta} f^{\alpha} - c$ $c^{\kappa} \partial^{\beta} f^{\alpha} - c$ $c^{\kappa} \partial^{\beta} f^{\alpha} - c$ $c^{\beta} \partial^{\beta} f^{\alpha} - c$ $c^{\beta} \partial^{\beta} f^{\alpha} + c$ $c^{\beta} \partial^{\beta} g^{\alpha} + d$	16x 9 ₆ 3	H ^{up} - Ö A ^{abx} C J ^b B ^a +	$_{a}$ - $\partial_{x}\mathcal{A}_{\beta}^{\ \ \ \ }_{\delta}\partial^{x}\mathcal{A}^{a\beta}$ $\partial_{x}\mathcal{A}_{a\beta\delta}$ + $\partial_{\delta}\mathcal{A}_{a\beta}$ $\mathcal{B}_{\beta}\partial^{\beta}\mathcal{B}^{a}$ + 2 $\partial^{\beta}\mathcal{B}^{a}$	'Βα -6 4 _{αχ δ} ο ^δ 4 _{αχ β} ο ^ζ	0 ⁺ τ + 844	$i \sqrt{3}(12 \lambda - v)$ $\lambda^2 - 7 k \nu (\lambda + 2 k^2) (r - r + 2 r)$	<u> </u>	$\frac{i}{7 \sqrt{2} k (\lambda + \frac{2 k^2 v \cdot (r_1 - r_2)}{12 \lambda + 1})}$	+2r.) 1 4)	$-12 \lambda + v + $ $2 k^2 (-12 \lambda^2 + \lambda$	$24 k^2 (r_1)$	-r.+2r.)	<u></u> 0
36 B_{α} 2-2 $\partial_{\beta}f_{x}^{X}$ 3 $\partial_{\beta}f_{\alpha x}$ 4 + $\partial_{\lambda}f_{\alpha}$ $\mathcal{A}_{\beta x}$ 0 $\mathcal{A}_{\beta x}$ 2 $\partial_{\lambda}f_{\alpha\beta}$ $\mathcal{A}_{\beta x}$ 3 $\mathcal{A}_{\beta x}$ 4		8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 -	ور م م م م	8 9 9 5 5 9 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5	0 ⁺ τ ⁻ †	0 0	4′′	0	· ·		0	0	
$-36 \mathcal{B}_{\alpha}$ $-36 \mathcal{B}_{\alpha}$ $+3 \partial_{\beta} f$ $+3 \partial_{\beta} f$ $f_{\alpha x} + \partial_{x}$ $-2 \mathcal{A}_{\beta}^{x}$ $-2 \mathcal{A}_{\beta}^{x}$ $+2 \partial_{x} f_{\alpha}$	$a^{\alpha\beta} = -4$	$8 \partial_a \mathcal{B}^{-} (2 \partial_{\mu} \mathcal{B}^{-} + \partial_{\chi} \mathcal{A}^{\mu_{\chi}})^{-} \partial_{\mu} \mathcal{A}^{\chi}_{\chi^{\circ}} \partial^{\mu} \mathcal{A}^{\mu_{\mu}}$ $\partial_{\alpha} \mathcal{A}^{\mu \beta \gamma} \partial_{\delta} \mathcal{A}^{\beta}_{\chi} + 2 \partial^{\chi} \mathcal{A}^{\mu \beta} \partial_{\delta} \mathcal{A}^{\beta}_{\beta} - \partial_{\alpha} \mathcal{A}^{\beta}$ $\partial_{\alpha} \mathcal{A}^{\chi}_{\chi} \partial^{\mu} \mathcal{B}^{\alpha} - 9 \partial_{\alpha} \mathcal{B}_{\beta} \partial^{\mu} \mathcal{B}^{\alpha} - 6 \partial_{\beta} \mathcal{A}^{\chi}_{\chi} \partial^{\mu} \mathcal{B}^{\beta}$	74 ab a a a a a a a a a a a a a a a a a a	+6 ∂ _α 1, χ 4, α − − − − − − − − − − − − − − − − − −	0 σl †	0 0		0			0		0
$A_{\alpha\beta} B^{\alpha} - 3$ $A_{\alpha\beta} B^{\alpha} - 3$ $A_{\alpha\beta} A^{\beta} A^{\alpha} - 3$ $A_{\alpha\beta} A^{\beta} A^{\beta} A^{\beta} + 3$ $A_{\alpha\beta} A^{\beta} A^{\beta}$	38° -	$\{a^{\beta}_{\alpha}, c^{\beta}_{\alpha}, c^{\beta}_{\alpha}\}$	% % % % % +2 3" +2	$^{\beta}\mathcal{B}^{\alpha}$ - $^{\alpha}\partial_{\chi}\mathcal{G}$, 0"	0 0							U
$+24 \mathcal{A}_{\alpha\beta}^{\ \beta} \mathcal{B}^{a}$ $+4 \mathcal{A}_{\beta\chi}^{\ \chi} \partial^{\beta} f^{a}$ $-3 \partial_{af}_{\chi} \beta^{3} f^{a\beta}$ $f_{\beta\chi}^{\ \chi} - \partial_{af}_{\chi} f^{\beta} \partial^{\beta} f^{a\beta}$ $\mathcal{A}_{\alpha\chi}^{\ \chi} \partial_{\beta} f^{a\beta} +$ $+ \partial_{\beta} f_{\alpha\chi} \partial^{\gamma} f^{a\beta}$ $+ \partial_{\beta} f_{\alpha\chi} \partial^{\gamma} f^{a\beta}$ $- \partial_{\alpha} \mathcal{B}_{\alpha}^{\ \beta} \partial^{\beta} \mathcal{B}^{a} - 4.$	$a - \partial_x \mathcal{A}_{\beta \delta}^{\ \delta} \partial^x \mathcal{A}^{\alpha\beta}$ $4 \partial_\alpha \mathcal{B}_{\beta} \partial^\beta \mathcal{B}^{\alpha} - 4 \partial_\beta \mathcal{B}^{\beta}$	$+ \partial_{x} \mathcal{A}^{\mu_{x}} \Big) -$ $+ 2 \partial^{x} \mathcal{A}^{\alpha\beta} \Big)$ $+ 2 \partial^{\alpha} \mathcal{B}^{\beta} \partial^{\beta} \mathcal{B}^{\alpha}$	$6 \partial^{\mu} B^{\mu} \partial_{\nu} \partial_{\beta} f_{\alpha}^{\ \ X} + \partial_{\mu} A_{\alpha}^{\ \ \ \ \ } \partial_{\beta} A_{\alpha y} \dot{\sigma}^2 \partial_{\beta} A_{\alpha b \chi} + 2 \partial_{\beta} A_{\chi} \dot{\sigma}^2$ $\partial_{\mu} A_{\alpha \chi} \dot{\sigma}^2 \partial_{\mu} A_{\alpha b \chi} + 2 \partial_{\beta} A_{\chi} \dot{\sigma}^2$ $\partial_{\alpha} \partial_{\mu} B^{\beta} - 2 \partial_{\alpha} A_{\beta}^{\ \ \chi} \partial^{\beta} B^{\alpha} + 2 \partial_{\alpha} f_{\alpha}^{\ \ \chi} \partial^{\beta} B^{\alpha} + 2$	1 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 ×	Spin-pari			orm					Mult
$+24 \mathcal{G}_{\mu}$ $+44 \mathcal{G}_{\mu}$ $= 3 \partial_{\alpha} f$ $= 4 f_{\beta \chi} - \partial_{\alpha} f$ $= 2 \mathcal{G}_{\alpha \chi}^{\chi}$ $= 4 \partial_{\alpha} \mathcal{B}_{\beta} f_{\alpha}$	β - θ + 4 θ	3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 +	* & & & & & & & & & & & & & & & & & & &	5 0 a 3 k + 6 f x + .	0 ⁺ τ [±] == 0		$\partial_{\beta}\partial_{\alpha}\tau^{\alpha\beta}$:	== 0					1
$\begin{array}{ccc} & \mathcal{A} & \chi & $	3×	2 9 2 9 2 9 2 9 2 9 2 9 2 9 2 9 2 9 2 9	$\int_{X} \partial_{\beta} f$ $\int_{Y} 2 \partial_{\mu} f$	8° -6 x,\(\alpha_{\alpha}\)	$2^{0^{+}}\sigma^{\parallel} + 0$	⁺ \mathcal{J} ==0	$\partial_{\alpha}\mathcal{J}^{\alpha}$ ==	$2 \partial_{\beta} \sigma^{\alpha}_{\alpha}^{\beta}$					1
$\mathcal{A}^{ab}_{a} \mathcal{A}^{x}_{b \times} +$ $24 f^{a}_{a} \partial_{b} \mathcal{B}^{b} +$ $6 \partial_{a} f_{b \times} \partial^{x} f^{ab} -$ $4 \mathcal{A}_{b \mid a} + 2 \partial_{a} f$ $\pi^{ab}_{a} \mathcal{A}^{x}_{b \times} - 2$ $2 \partial_{a} f_{x}_{b} \partial^{x} f^{ab} +$ $2 \partial_{a} f_{x}_{b} \partial^{x} f^{ab} +$ $2 \partial_{a} f_{x}_{b} \partial^{x} \partial^{x} f^{ab} +$	$\partial_{\beta}\mathcal{A}_{\chi\delta}^{\ \ \delta}\partial^{\chi}\mathcal{A}^{\alpha\beta}$ $\partial_{\alpha}\mathcal{A}_{\chi\delta}^{\ \ \lambda}\partial^{\beta}\mathcal{B}^{\alpha}+$	$8 \partial_{lpha} B^{st} (2 \partial_{eta} B^{st}) $	9 8 6 9 8 6 9 8 6	B ^a 0 _B ^B B ^a 0 A _{abo} '	$0^{+}\rho ==0$		ρ ==0						1
$\frac{1}{6} \lambda. (8 \mathcal{A}^{\alpha\beta}_{\alpha} \mathcal{A}^{X}_{\beta} + 24 \mathcal{A}^{\beta}_{\alpha\beta} \mathcal{B}^{\alpha} - 24 f^{\alpha}_{\alpha\beta} \mathcal{B}^{\alpha} + 4 \mathcal{A}^{X}_{\beta\lambda} \partial^{\beta} f^{\alpha}_{\alpha} $ $24 f^{\alpha}_{\alpha} \partial_{\beta} \mathcal{B}^{\beta} + 4 \mathcal{A}^{X}_{\beta\lambda} \partial^{\beta} f^{\alpha\beta} - 60 d^{\beta}_{\alpha} \partial^{\beta} f^{\alpha\beta} - 3 \partial_{\alpha} f^{\alpha}_{\beta} \partial^{\beta} f^{\alpha\beta} - 4 \partial_{\beta} f^{\alpha}_{\alpha} \partial^{\beta} f^{\alpha\beta} + 2 \partial_{\alpha} f^{\alpha}_{\beta} \partial^{\beta} f^{\alpha\beta} + 2 \partial_{\alpha} f^{\alpha}_{\beta} \partial^{\beta} f^{\alpha\beta} + 2 \partial_{\alpha} f^{\alpha}_{\beta} \partial^{\beta} f^{\alpha\beta} + 2 \partial_{\alpha} f^{\alpha}_{\alpha} \partial^{\beta} f^{\alpha\beta} + 2 \partial_{\alpha} f^{\alpha}_{\alpha} \partial^{\beta} f^{\alpha\beta} + 2 \partial_{\alpha} f^{\alpha\beta} \partial^{\beta} f^{\alpha\beta} \partial^{\beta}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8 9 0 _a 5 (6 0 _a 5	$6 \frac{\partial}{\partial \alpha B^{\alpha}}$	(6 0 a.	2 i k¹ o a	$+ 1_{\tau^{\perp}}^{\alpha} - i k^{1} \mathcal{J}^{\alpha} == 0$							3
$\begin{bmatrix} \frac{1}{6} \lambda & 0 \\ \frac{1}{6} \lambda & 0 \end{bmatrix}$	7. (-4	\frac{2}{9} \xi ($\frac{1}{3}r$	312				$^{\alpha}\tau^{\beta\chi} + \partial_{\chi}\partial^{\chi}\partial_{\beta}\partial^{\beta}\mathcal{J}^{\alpha} +$	$2 (\partial_{\delta} \partial^{\delta} \partial_{\chi} \partial^{\epsilon} \partial_{\lambda} \partial^{\epsilon} \partial^{\epsilon} \partial_{\lambda} \partial^{\epsilon} \partial^{\epsilon} \partial_{\lambda} \partial^{\epsilon} \partial^{\epsilon} \partial_{\lambda} \partial^{\epsilon} \partial$	${}^{\alpha}\sigma^{\beta}_{\ \beta}^{\ \chi} + \partial_{\delta}\partial^{\delta}$	$\partial_{\chi}\partial^{\chi}\sigma^{l}$	$_{\beta}^{\beta\alpha}$)	
					1 τ" == 0		$\partial_{\chi}\partial_{\beta}\partial^{\alpha}\tau^{\beta}$	$\partial X == \partial_{x} \partial^{X} \partial_{\beta} \tau^{\beta \alpha}$					3
					2 1 σ ^α ==	$2 {}^{1}\sigma^{{}^{\perp}{}^{\alpha}} + {}^{1}\mathcal{J}^{\alpha}$	$\partial_{eta}\partial^{lpha}\mathcal{J}^{eta}$	$==\partial_{\beta}\partial^{\beta}\mathcal{J}^{\alpha}+2(\partial_{\chi}\partial^{\alpha}\partial_{\beta}\partial_{\beta}\partial_{\beta}\partial_{\beta}\partial_{\beta}\partial_{\beta}\partial_{\beta}\partial_{\beta$	$r^{\beta}_{\beta}^{\chi} + \partial_{\chi}\partial^{\chi}$	$\sigma^{\beta\alpha}_{\beta}$)			3
					$i k 1^+ \sigma^{\perp}^{\alpha\beta}$	$+ 1^+_{1} \tau^{\parallel}^{\alpha\beta} == 0$	$\partial_{\chi}\partial^{\alpha}\tau^{\beta\chi}$	$+\partial_{\chi}\partial^{\beta}\tau^{\chi\alpha}+\partial_{\chi}\partial^{\chi}\tau^{\alpha\beta}+$	+2 ∂ _δ ∂ _χ ∂ ^α c	$\sigma^{\chi \beta \delta} + 2 \partial_{\delta} \partial^{\delta}$	$\partial_{\chi}\sigma^{\chilphaeta}$	==	3

Total expected gauge generators:

$^{2}\mathcal{A}^{\parallel}_{\alpha\beta\chi}$	0	0	$\lambda_1 + k^2 r_1 + \frac{t_1}{2}$	
$\frac{2^+}{2}f^{\parallel}_{\alpha\beta}$	$\frac{i \ k(2 \ \lambda \ + t_1)}{\sqrt{2}}$	$k^2 (\lambda + t_1)$		
2 $\mathcal{A}^{\parallel}_{lphaeta}$	$2^{+}\mathcal{A} _{1}+^{\alpha\beta} \boxed{\lambda_{1}+k^{2}(2r_{1}-2r_{3}+r_{4})+\frac{t_{1}}{2}}$	$i \ k(2 \lambda, +\epsilon_{\perp}) \over \sqrt{2}$	0 0	
	$^{2^{+}}\mathcal{A}^{\parallel}\uparrow^{\alpha\beta}$	$2^+f^{\parallel} +^{\alpha\beta}$	2 All † αβχ	_
$^{2}\sigma^{\parallel}_{\alpha\beta\chi}$	0	0	1	$\lambda + k^2 r_1 + \frac{t_1}{2}$
$2^+ \tau^{\parallel}_{\alpha\beta}$	$\frac{i \sqrt{2}(2 \lambda_1 + t_1)}{2 k^3 (2 r_1 - 2 r_2 + r_4)(\lambda_1 + t_1) + \lambda_1 (2 \lambda_1 + t_1)}$	$\lambda + k^2 (2r_1 - 2r_3 + r_4) + \frac{r_1}{2}$	$k^4 (2r_1 - 2r_3 + r_4) (\lambda + t_1) - \frac{1}{2} k^2 \lambda (2\lambda + t_1)$	0
$\overset{2^{+}}{\cdot}\sigma^{\parallel}{}_{\alpha\beta}$	$\frac{k^2(\lambda,t_{\xi_1})}{k^4(2t_1^2-2t_2^2+t_1^2)(\lambda,t_{\xi_1}^2)^2}\frac{i\sqrt{2}(2\lambda,t_{\xi_1})}{2k^3(2t_1^2-2t_2^2+t_1^2)(\lambda,t_{\xi_1}^2)^2}\frac{i\sqrt{2}(2\lambda,t_{\xi_1})}{2k^3(2t_1^2-2t_2^2+t_1^2)(\lambda,t_{\xi_1}^2)^2}$	$i\sqrt{2}(2\lambda + t_1)$	$2K \cdot (Z_1, Z_2, z_1, z_2, z_1, z_2, z_2, z_1, z_2, z_2, z_1, z_2, z_2, z_2, z_2, z_2, z_2, z_2, z_2$	0
	$2^+\sigma^{\parallel}+^{\alpha\beta}$	2 ⁺ τ" † ^{αβ}		2 σ" + ^{ωχ}

0

0

0

0

0 $\frac{1}{-2 \lambda + k^2 r + t}$

Multiplicities

 $\partial_{\chi}\partial^{\alpha}\tau^{\chi\beta} + \partial_{\chi}\partial^{\beta}\tau^{\alpha\chi} + \partial_{\chi}\partial^{\chi}\tau^{\beta\alpha} + 2 \partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta}$

Massive and massless spectra

	$\frac{4r_{i}t_{i}x_{i}^{2})+2r_{i}(t_{1}^{2}+2t_{2}^{2})}{t_{1}+t_{2}^{2})} > 0$			$J^P = 0^+$ $k^\mu = (\varepsilon, 0, 0, p)$ Massive part	? / ? ?	?	$J^P = 2^ k^\mu = (\mathcal{E}, 0, 0, p)$ assive particle	? $k^{\mu} = (p, 0, 0, p)$
article	${}^{2}_{1,t_{2}^{2}}+4\lambda^{2}\left(6_{r_{3}}+3r_{5}+t_{1}+t_{2}\right)+2\lambda\left(2r_{5}t_{1}+t_{1}^{2}+4r_{3}\left(t_{1}-2r_{2}\right)-4r_{5}t_{2}+r_{3}^{2}\left(t_{2}+r_{3}\right)\left(t_{1}+t_{2}\right)\left(12\lambda^{2}+2r_{5}t_{1}+6h_{1}^{2}+4r_{3}^{2}\left(t_{2}+2h_{2}^{2}\right)\right)+2r_{5}t_{2}^{2}+3t_{5}t_{3}^{2}+4r_{3}^{2}\left(t_{1}+t_{2}^{2}\right)\left(t_{1}+t_{2}^{2}\right)\left(t_{1}+t_{2}^{2}\right)\left(t_{2}+t_{3}^{2}\right)+2r_{5}t_{2}^{2}+3t_{5}t_{3}^{2}+4r_{3}^{2}\left(t_{1}+t_{2}^{2}\right)\right)$			Poleresidue: $\frac{1}{14} \left(-\frac{7}{\lambda} + \frac{8}{4} \right)$ Square mass: $\frac{12 \lambda^2 - \lambda}{2 \nu_{r_1} - 2 \nu_{r_3} + \frac{1}{4}}$ Spin: 0 Parity: Even	<u> </u>		esidue: $-\frac{1}{r_1} > 0$ e mass: $-\frac{2\lambda + t}{2r_1} > 0$ 0	Massless particle Pole residue: $-\frac{1}{\lambda} > 0$ Polarisations: 2
$J^{P} = 1 + $ $V^{P} = 1 + $ $V^{P} = (E, 0, 0, P)$ $V^{P} = (E, 0, 0, P)$ $V^{P} = 1 + $ $V^{$	Poleresidue: $\frac{3(r_{s_1}^{2}+r_{s_2}^{2}+2r_{s_2}^{2}r_{s_2}^{2}+4\lambda^{2}(6r_{s_3}+3r_{s_1}+r_{s_2})+2\lambda(2r_{s_1}+r_{s_2}^{2}+4r_{s_3}(r_{s_2}+2r_{s_2})+2r_{s_3}(r_{s_2}+2r_{s_2}^{2})}{(2r_{s_3}+r_{s_3})(r_{s_3}+r_{s_3})(r_{s_3}+r_{s_3}+r_{s_3}+r_{s_3})}$	Square mass: $\frac{3(2\lambda+t_1)(2\lambda+t_1)}{2(2\lambda+t_2)(t_1+t_2)} > 0$	Spin: 1 Parity: Even	$JP = 2+$ $k^{\mu} = (\hat{c}, 0, 0, p)$ $?$ $?$ $?$ $?$ $?$ $?$ Massive particle	esidue: re mass:	Spin: 2 Parity: Even	? $J^{P} = 0^{-}$ $k^{\mu} = (\mathcal{E}, 0, 0, p)$? Massive particle Pole residue: $\frac{1}{r_{2}} > 0$ Square mass: $\frac{2\lambda \cdot r_{2}}{r_{2}}$ Spin: 0 Parity: Odd	— ?

 $4(v,(r,+r,+r,+r,+12\;\lambda\;(r,+r,+r,+\xi,)+6\;t,(2r,+2\;r,+2\;r,+\xi,))^2) +$

 $15r_1r_4\sqrt{(96(12 \ \lambda_1-v_1)(r_1+r_4+r_5)(2 \ \lambda_1+t_1) \ \xi_1}$

 $4(v_1(r_1+r_1+r_2)+12\lambda_1(r_1+r_2+r_3)+6t_1(2r_1+2r_2+2r_3+\xi))^2)+$

 $\frac{15}{2} r_4^2 \sqrt{(96(12 \lambda - v)(r_1 + r_4 + r_5)(2 \lambda + t_1) \xi} +$

 $4(v(r_1+r_2+r_3)+12\lambda(r_1+r_2+r_3)+6t_1(2r_1+2r_2+2r_3+\xi))^2)+$

 $15_{1} + \sqrt{(96(12 \ \lambda - \nu)(r + r + r + r)(2 \ \lambda + t)} \xi +$

 $4(v(r_1+r_1+r_2)+12\lambda(r_1+r_1+r_2+\xi)+6t_1(2r_1+2r_1+2r_2+\xi))^2)+$

15r, r, $\sqrt{(96(12 \lambda - v)(r_1 + r_4 + r_5)(2 \lambda + t_1) \xi}$ +

 $4(v,(r_1+r_2+r_3)+12\lambda,(r_1+r_2+r_3)+6\,t_1(2r_1+2\,r_2+2\,r_3+\xi))^2)+$

 $4(v_1(r_1+r_4+r_5)+12\lambda_1(r_1+r_4+r_5+\xi)+6\,t_1(2r_4+2\,r_4+2\,r_5+\xi))^2)+$

 $4(v.(r.+r.+r.)+12 \lambda.(r.+r.+r.+\xi.)+6 t.(2r.+2 r.+2 r.+\xi.)^2)+6 t.(2r.+2 r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.)^2)+6 t.(2r.+\xi.$

 $\frac{7}{2}r_1 \xi. \sqrt{(96(12 \lambda - \kappa)(r_1 + r_4 + r_5)(2 \lambda + t_1) \xi} +$

 $4(v(r,+r,+r,+r,+12 \lambda (r,+r,+r,+\xi)+6 t,(2r,+2 r,+2 r,+\xi))^2)-$

 $\lambda \xi \sqrt{(96(12 \lambda - \kappa)(r_1 + r_4 + r_5)(2 \lambda + t_1) \xi} +$

 $\frac{15}{2}r_5^2\sqrt{(96(12\lambda-\nu)(r_1+r_4+r_5)(2\lambda+t_1)\xi}$

 $4(v.(r_1+r_2+r_3)+12.\lambda.(r_1+r_2+\xi.)+6.t_1.(2r_1+2.r_2+\xi.)^2)+$

 $4(v_1(r_1+r_2+r_3)+12\lambda_1(r_1+r_3+r_5)+6\lambda_1(2r_1+2r_3+2r_5+\xi))^2)-$

 $\frac{7}{2} r_5 \, \xi \, \sqrt{(96(12 \, \lambda - v)(r_1 + r_4 + r_5)(2 \, \lambda + t_1) \xi} \, +$

 $\frac{1}{2}t_1\xi_1\sqrt{(96(12\,\lambda-\nu)(r_1+r_2+r_3)(2\,\lambda+t_1)\xi}+4(\nu(r_1+r_2+r_3)+12$

 $((r_1 + r_2 + r_3)\sqrt{(144\lambda^2 r_1^2 + 24\lambda v_1 r_1^2 + v^2 r_1^2 + 288\lambda^2 r_1 r_2 + 448\lambda v_1 r_1 r_4 + 5)}$

	5 1 5 1 1 1 4 1 4 1	
	$288r, r, t, ^2 + 288, r, t, ^2 + 144, r, ^2t, ^2 + 864, \lambda^2r, \xi, -24, \lambda, v, \xi, + 15, 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 $	
	8641, ² , §24 1, v. r. §. +864 1, ² r. §24 1, v. r. §. +720 1, r. f. §	
	$12 \nu_{1} t_{1} \xi_{1} + 720 \lambda_{1} t_{2} \xi_{1} - 12 \nu_{1} t_{1} \xi_{1} + 720 \lambda_{1} t_{1} \xi_{2} + 720 \lambda_{2} t_{1} \xi_{1} + 720 \lambda_{2} t_{2} t_{2} t_{2} + 720 \lambda_{2} t_{2} t_$	
	$144r,t,^2\xi,+144r,t,^2\xi,+144r,t,^2\xi,+144\lambda^2\xi^2,+144\lambda,t,^2\xi^2+36t,^2\xi^2)$	
	$(60\lambda_{11} + 5 v_{17} + 60\lambda_{17} + 5 v_{17} + 60\lambda_{15} + 5 v_{17} + 60v_{15} + 60v_{11} + 60v_{11} + 60v_{11} + 60v_{12} + 60v_{13} + 60v_{14} + 60v_{14}$	
	$60r_{51} + 60\lambda \xi - 28r_{1} \xi - 28r_{2} \xi + 30t_{1} \xi + 30t_{1} \xi +$	
	$\frac{5}{2}\sqrt{(96(12 \ \lambda - \nu)(r_1 + r_2 + r_3)(2 \ \lambda + t_1)\xi} + 4(\nu, (r_1 + r_2 + r_3) + 12 \ \lambda.$	
	$(r_1 + r_2 + r_3 + r_4) + (r_1 + r_3 + r_4 + r_5 + r_5)) > 0$	
square mass:	square mass: $\frac{1}{8(r_1+r_4+r_5)^6}(12\lambda r_1 + v_1 r_1 + 12\lambda r_4 + v_1 r_4 + 12\lambda r_5 + v_1 r_5 + 12r_1 r_1 + 12r_4 r_4 + r_4 r_5 + r_5 r_5 + r_5 r_5 + r_5 r_5 + r_5 r_5 r_5 + r_5 r_5 r_5 + r_5 r_5 r_5 + r_5 r_5 r_5 r_5 + r_5 r_5 r_5 r_5 r_5 r_5 r_5 r_5 r_5 r_5$	
	$12r, t, +12\lambda, \xi + 6t_1 \xi + \frac{1}{2}\sqrt{(96(12\lambda - v)(r_1 + r_2 + r_3)(2\lambda + t_1)\xi} +$	
	$4(v,(r,+r,+r,+r,+12 \lambda,(r,+r,+r,+\xi)+6 t,(2r,+2 r,+2 r,+\xi),)^2))>0$	
spin:	1	
1,11		

Unitarity conditions

Pole residue: (6 (180 λ r 3 +15 v r 3 +540 λ r 2 r +45 v r 2 r +540 λ r r 2 +45 v r r 3 + 180 λ r 3 + 100 λ r 3 r 3 + 100 λ r 3 r 3 + 100 λ r 3 r 3

 $15 \, v_1 \, r_3^{\ 3} + 540 \, \lambda_1 \, r_2^{\ 2} r_3^{\ 4} + 45 \, v_1 \, r_2^{\ 2} r_3^{\ 4} + 1080 \, \lambda_1 \, r_1 \, r_3^{\ 4} + 90 \, v_1 \, r_1 \, r_3^{\ 4} + 100 \, r_1^{\ 4} + 100 \, r_1^{\ 4} + 100 \, r_1^{\ 4} \, r_1^{\ 4}$

 $540 \lambda r^{2}r + 45 v r_{4}$

 $2\lambda \, v_1 \, \xi \, + 816 \, \lambda_1 \, r_1 \, \xi \, - 14 \, v_1 \, r_1 \, \xi \, + 408 \, \lambda_1 \, r_2^2 \, \xi \, - 7 \, v_1 \, r_2^2 \, \xi \, - 72 \, \lambda_2^2 \, r_2 \, \xi \, + \\$

 $180r^{3}t$, $72\lambda^{2}r$, ξ , $+2\lambda$, v_{1} , ξ , +408, v_{1} , $^{2}\xi$, -7, v_{1} , $^{2}\xi$, $-72\lambda^{2}r$, ξ , +

 $\begin{array}{c} v.r.t.\xi + 324 r.r.t.\xi + 162 r.^2t.\xi - 60 \lambda.r.t.\xi + v.r.t.\xi + 324 r.r.t.\xi \\ 4 & 1 & 1 & 1 & 1 & 1 \\ 324 r.t.\xi + 162 r.^2t.\xi - 12 r.t.^2\xi - 12$

 $84\lambda r_1$ $\xi^2 + 84\lambda r_4$ $\xi^2 + 84\lambda r_5$ $\xi^2 - 24\lambda r_1$ $\xi^2 + 42r_4$ $\xi^2 + 42r_4$ $\xi^2 + 42r_4$

 $42r_{51}\xi^{2} - 6t_{1}^{2}\xi^{2} + \frac{15}{2}r_{1}^{2}\sqrt{(96(12 \lambda - v)(r_{1} + r_{2} + r_{3})(2 \lambda + t_{1}) \xi + }$

 $408\lambda_{1}, {}^{2}\xi_{.} - 7 v_{1}, {}^{2}\xi_{.} - 60 \lambda_{1}, {}^{2}\xi_{.} + v_{1}, {}^{2}\xi_{.} + 162 v_{1}^{2}, {}^{2}\xi_{.} + 60 \lambda_{1}, {}^{2}\xi_{.} + \\$

2 λ v.r. ξ. +816 λ.r. ξ. -14 v.r. ξ. +816 λ.r. ξ. -14 v.r. ξ. +

(Timeout after 10 seconds)