

[illegible][illegible]

$2 \times 2 \times 2^2$	$\mathbb{Z}[1/2]_{\text{off}}$	$\mathbb{Z}[1/3]_{\text{off}}$	$\mathbb{Z}[1/5]_{\text{off}}$	$\mathbb{Z}[1/6]_{\text{off}}$	$\mathbb{Z}[1/30]_{\text{off}}$	$\mathbb{Z}[1/60]_{\text{off}}$
$\mathbb{Z}[1/2]^{\text{off}}$	0	$-\frac{1}{2}\sqrt{2}$	$-\frac{1}{2}\sqrt{3}$	$\frac{1}{2}\sqrt{6}$	0	0
$\mathbb{Z}[1/3]^{\text{off}}$	$\frac{1}{3}\sqrt{2}$	$\frac{1}{3}$	0	0	0	0
$\mathbb{Z}[1/5]^{\text{off}}$	$\frac{1}{5}\sqrt{2}$	$\frac{1}{5}\sqrt{3}$	0	0	0	0
$\mathbb{Z}[1/6]^{\text{off}}$	0	0	$\frac{1}{6}(-3\sqrt{2} - c, \sqrt{2})$	$\frac{c}{6}\sqrt{2}$	0	0
$\mathbb{Z}[1/30]^{\text{off}}$	$\frac{1}{30}\sqrt{2}$	$\frac{1}{30}\sqrt{3}$	$\frac{c}{6}\sqrt{2}$	$\frac{1}{15}(3\sqrt{2} - c, \sqrt{2})$	0	0
$\mathbb{Z}[1/60]^{\text{off}}$	$\frac{1}{60}\sqrt{2}$	$\frac{1}{60}\sqrt{3}$	$\frac{1}{15}(3\sqrt{2} - c, \sqrt{2})$	0	0	0
$\mathbb{Z}[1/2]_{\text{off}}$	0	0	0	0	$\frac{1}{2}$	$\frac{1}{2}$
$\mathbb{Z}[1/3]_{\text{off}}$	0	0	0	0	$\frac{1}{3}$	$\frac{1}{3}$
$\mathbb{Z}[1/5]_{\text{off}}$	0	0	0	0	$\frac{1}{5}$	$\frac{1}{5}$
$\mathbb{Z}[1/6]_{\text{off}}$	0	0	0	0	$\frac{1}{6}$	$\frac{1}{6}$
$\mathbb{Z}[1/30]_{\text{off}}$	0	0	0	0	$\frac{1}{30}$	$\frac{1}{30}$
$\mathbb{Z}[1/60]_{\text{off}}$	0	0	0	0	$\frac{1}{60}$	$\frac{1}{60}$

[illegible][illegible]

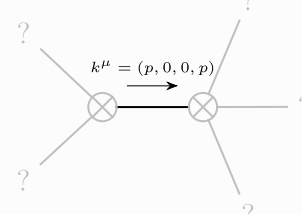
$\begin{pmatrix} \gamma_1^2 \mu^2 \\ \gamma_2^2 \mu^2 \end{pmatrix}$	$2^* \gamma_1^{\dagger} a_{\beta}$	$2^* \gamma_2^{\dagger} a_{\beta}$	$2^* \gamma_3^{\dagger} a_{\beta}$	$2^* \gamma_4^{\dagger} a_{\beta}$	$2^* \gamma_5^{\dagger} a_{\beta}$	$2^* \gamma_6^{\dagger} a_{\beta}$	$2^* \gamma_7^{\dagger} a_{\beta}$	$2^* \gamma_8^{\dagger} a_{\beta}$	$2^* \gamma_9^{\dagger} a_{\beta}$
$2^* \gamma_1^{\dagger} a^{\dagger}$	$-\frac{8}{a_1^2} k^2$	$\frac{4i\sqrt{2}}{a_1 k}$	$\frac{4i}{\sqrt{3} a_1 k}$	$\frac{4i\sqrt{3}}{a_1 k}$		0	0		
$2^* \gamma_2^{\dagger} a^{\dagger}$	$\frac{4i\sqrt{2}}{a_1 k}$	0	$\frac{2\sqrt{2}}{a_1}$	$\frac{4}{\sqrt{3} a_1}$		0	0		
$2^* \gamma_3^{\dagger} a^{\dagger}$	$-\frac{4i}{\sqrt{3} a_1 k}$	$\frac{2\sqrt{2}}{a_1}$	$\frac{4(-a_1 + \gamma_1^2 \mu^2)}{3a_1^2}$	$-\frac{2\sqrt{2}(\frac{a_1}{3} + \mu^2)}{3a_1^2}$		0	0		
$2^* \gamma_4^{\dagger} a^{\dagger}$	$\frac{4i\sqrt{3}}{a_1 k}$	$\frac{4}{\sqrt{3} a_1}$	$\frac{4(-\frac{a_1}{3} + \mu^2)}{3a_1^2}$	$\frac{4(2\frac{a_1}{3} + \mu^2)}{3a_1^2}$		0	0		
$2^* \gamma_5^{\dagger} a^{\dagger}$						0	0		
$2^* \gamma_6^{\dagger} a^{\dagger}$	0	0	0	0	$\frac{4}{a_5^2}$	0			
$2^* \gamma_7^{\dagger} a^{\dagger}$	0	0	0	0		$\frac{4}{a_6^2}$	0		
$2^* \gamma_8^{\dagger} a^{\dagger}$	0	0	0	0			$\frac{4}{a_7^2}$	0	
$2^* \gamma_9^{\dagger} a^{\dagger}$	0	0	0	0				$\frac{4}{a_8^2}$	$\frac{2^* \gamma_9^{\dagger} a_{\beta} k}{a_9^2}$

Spin-parity form	Covariant form	Multiplicities
$k^{\mu} \langle \eta_S^{\pm} + 2 k^{\mu} \langle \eta_S^{\pm h} - 6 \rangle^{\mu} \eta^{\pm} \rangle = 0$	$2 \partial_{\beta} \eta^{\beta} \eta^{\alpha} + \partial^{\alpha} \partial_{\beta} \eta^{\alpha} \eta^{\beta} = \partial_{\beta} \partial_{\alpha} \eta^{\alpha} \eta^{\beta \alpha}$	1
$k^{\mu} \langle \eta_A^{\pm} + 2 i \langle \eta^{\pm} \rangle = 0$	$2 \partial_{\beta} \eta^{\beta} \eta^{\alpha} + \partial_{\alpha} \partial_{\beta} \eta^{\alpha} \eta^{\beta \alpha}$	1
$k^{\mu} \langle \eta_S^{\pm h} - 6 \rangle^{\mu} \eta^{\pm} = k [3 \langle \eta_S^{\pm h} \rangle + \eta_S^{\pm h} \eta^{\pm}]$	$2 \partial_{\beta} \partial_{\alpha} \eta^{\beta \alpha} \eta^{\beta \alpha} + \partial_{\alpha} \partial_{\beta} \eta^{\alpha} \eta^{\beta \alpha} = 2 \partial_{\beta} \partial_{\alpha} \eta^{\beta} \eta^{\alpha \beta} + \partial_{\alpha} \partial_{\beta} \eta^{\alpha} \eta^{\beta \alpha}$	5

A Feynman diagram showing a Pomeron exchange between two pairs of external lines. The top pair of lines (grey) and the bottom pair of lines (black) meet at vertices represented by circles with an 'X'. A red wavy line connects the two vertices, labeled with $J^P = 1^+$ and $k^\mu = (\mathcal{E}, 0, 0, p)$ with a red arrow pointing right. Each of the four external lines is labeled with a question mark '?'.

Massive particle	
Pole residue:	$-\frac{4}{c_3} > 0$
Square mass:	$\frac{a_0}{c_3} > 0$
Spin:	1
Parity:	Even

Massless particle	
Pole residue:	$-\frac{p^2}{a_\phi} > 0$
Polarisations:	2



Massless particle	
Pole residue:	$\frac{1}{c_3} + \frac{6c_3 p^4}{a_0^2} > 0$
Polarisations:	2

(Not yet implemented in PSALTER)

(Not yet implemented in PSALTER)

(Unitarity is demonstrably impossible)

(Not yet implemented in PSALTer)

(Not yet implemented in PSALter)