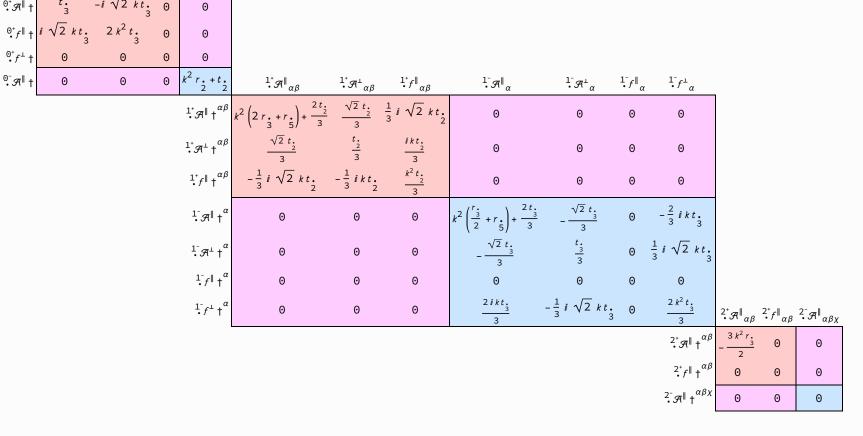


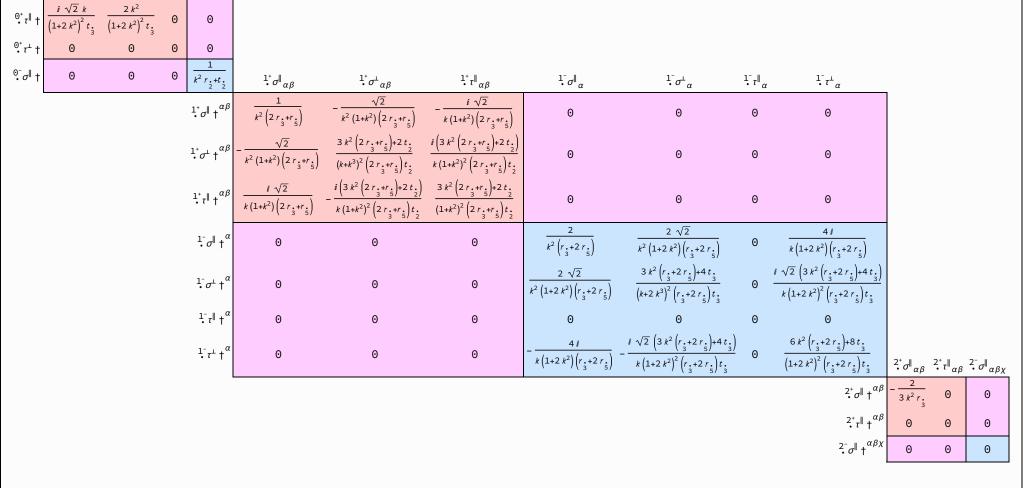
 $\iiint \int \left(\frac{1}{6} \left(-4 t \cdot \mathcal{A}^{\alpha \beta} \cdot \mathcal{A}^{\alpha \beta} \cdot \mathcal{A}^{\beta \beta} \cdot \mathcal{A}^{\beta \beta} \cdot \mathcal{A}^{\alpha \beta} \cdot \mathcal{A}^{\beta \beta} \cdot \mathcal{A}^{$



0° ₇ || 0° ₇ || 0° ₇ ⊥ 0° ₆ ||

Saturated propagator

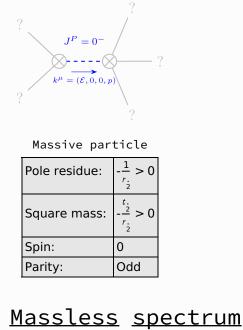
PSALTer results panel



Source constraints

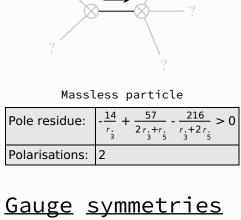
Spin-parity form	Covariant form	Multiplicities
⁰⁺ τ [⊥] == 0	$\partial_{\beta}\partial_{\alpha}\tau \left(\Delta + \mathcal{K}\right)^{\alpha\beta} = 0$	1
$-2 i k \cdot \sigma^{\parallel} + \cdot \tau^{\parallel} = 0$	$\partial_{\beta}\partial_{\alpha}\tau \left(\Delta + \mathcal{K}\right)^{\alpha\beta} = \partial_{\beta}\partial^{\beta}\tau \left(\Delta + \mathcal{K}\right)^{\alpha}_{\alpha} + 2 \partial_{\chi}\partial^{\chi}\partial_{\beta}\sigma^{\alpha}_{\alpha}^{\beta}$	1
$2 i k \cdot \frac{1}{\cdot} \sigma^{\perp}^{\alpha} + \cdot \frac{1}{\cdot} \tau^{\perp}^{\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}_{\tau}\left(\Delta+\mathcal{K}\right)^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\beta} + 2\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\sigma^{\beta\alpha\chi}$	3
1- _τ ^α == 0	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}_{\tau}\left(\Delta+\mathcal{K}\right)^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta\tau}\left(\Delta+\mathcal{K}\right)^{\beta\alpha}$	3
$i k \cdot \frac{1}{\cdot} \sigma^{\perp} \alpha^{\beta} + \left. \frac{1}{\cdot} \tau \right ^{\alpha \beta} = 0$	$\partial_{\chi}\partial^{\alpha}\tau \left(\Delta + \mathcal{K}\right)^{\beta\chi} + \partial_{\chi}\partial^{\beta}\tau \left(\Delta + \mathcal{K}\right)^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\tau \left(\Delta + \mathcal{K}\right)^{\alpha\beta} + 2 \partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\chi\beta\delta} + 2 \partial_{\delta}\partial^{\delta}\partial_{\chi}\sigma^{\chi\alpha\beta} = \partial_{\chi}\partial^{\alpha}\tau \left(\Delta + \mathcal{K}\right)^{\chi\beta} + \partial_{\chi}\partial^{\beta}\tau \left(\Delta + \mathcal{K}\right)^{\alpha\chi} + \partial_{\chi}\partial^{\chi}\tau \left(\Delta + \mathcal{K}\right)^{\alpha\beta} + 2 \partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta}$	3
$2^{-}\sigma^{\parallel}^{\alpha\beta\chi} = 0$	$3 \partial_{\epsilon} \partial_{\delta} \partial^{\chi} \partial^{\alpha} \sigma^{\delta \beta \epsilon} + 3 \partial_{\epsilon} \partial^{\epsilon} \partial^{\chi} \partial^{\alpha} \sigma^{\delta \beta}_{ \ \delta} + 2 \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\beta} \sigma^{\alpha \chi \delta} + 4 \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\beta} \sigma^{\chi \alpha \delta} + 2 \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\beta} \sigma^{\delta \alpha \chi} +$	5
	$2 \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\chi} \sigma^{\beta \alpha \delta} + 4 \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\chi} \sigma^{\delta \alpha \beta} + 2 \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\delta} \sigma^{\alpha \beta \chi} + 3 \eta^{\beta \chi} \partial_{\phi} \partial^{\phi} \partial_{\varepsilon} \partial^{\alpha} \sigma^{\delta}_{\delta} + 3 \eta^{\alpha \chi} \partial_{\phi} \partial^{\phi} \partial_{\varepsilon} \partial_{\delta} \sigma^{\delta \beta \varepsilon} + 3 \eta^{\beta \chi} \partial_{\phi} \partial^{\phi} \partial_{\varepsilon} \partial^{\varepsilon} \sigma^{\delta \alpha}_{\delta} = 0$	
	$3 \ \partial_{\epsilon} \partial_{\delta} \partial^{\chi} \partial^{\beta} \sigma^{\delta \alpha \epsilon} + 3 \ \partial_{\epsilon} \partial^{\epsilon} \partial^{\chi} \partial^{\beta} \sigma^{\delta \alpha}_{ \ \delta} + 2 \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\alpha} \sigma^{\beta \chi \delta} + 4 \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\alpha} \sigma^{\chi \beta \delta} + 2 \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\alpha} \sigma^{\delta \beta \chi} + 2 \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\chi} \sigma^{\alpha \beta \delta} +$	
	$2 \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\delta} \sigma^{\beta \alpha \chi} + 4 \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\delta} \sigma^{\chi \alpha \beta} + 3 \eta^{\alpha \chi} \partial_{\phi} \partial^{\phi} \partial_{\epsilon} \partial^{\beta} \sigma^{\delta}_{\delta} + 3 \eta^{\beta \chi} \partial_{\phi} \partial^{\phi} \partial_{\epsilon} \partial_{\delta} \sigma^{\delta \alpha \epsilon} + 3 \eta^{\alpha \chi} \partial_{\phi} \partial^{\phi} \partial_{\epsilon} \partial^{\epsilon} \sigma^{\delta \beta}_{\delta}$	
2 ⁺ _• τ ^{αβ} == 0	$4 \partial_{\delta} \partial_{\chi} \partial^{\beta} \partial^{\alpha}_{\tau} (\Delta + \mathcal{K})^{\chi \delta} + 2 \partial_{\delta} \partial^{\delta} \partial^{\beta} \partial^{\alpha}_{\tau} (\Delta + \mathcal{K})^{\chi}_{\chi} + 3 \partial_{\delta} \partial^{\delta} \partial_{\chi} \partial^{\chi}_{\tau} (\Delta + \mathcal{K})^{\alpha \beta} + 3 \partial_{\delta} \partial^{\delta} \partial_{\chi} \partial^{\chi}_{\tau} (\Delta + \mathcal{K})^{\beta \alpha} + 2 \eta^{\alpha \beta} \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial_{\chi} \tau (\Delta + \mathcal{K})^{\chi \delta} = 0$	5
	$3 \partial_{\delta} \partial^{\delta} \partial_{\chi} \partial^{\alpha}_{\tau} (\Delta + \mathcal{K})^{\beta \chi} + 3 \partial_{\delta} \partial^{\delta} \partial_{\chi} \partial^{\alpha}_{\tau} (\Delta + \mathcal{K})^{\chi \beta} + 3 \partial_{\delta} \partial^{\delta} \partial_{\chi} \partial^{\beta}_{\tau} (\Delta + \mathcal{K})^{\alpha \chi} + 3 \partial_{\delta} \partial^{\delta} \partial_{\chi} \partial^{\beta}_{\tau} (\Delta + \mathcal{K})^{\chi \alpha} + 2 \eta^{\alpha \beta} \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\delta}_{\tau} (\Delta + \mathcal{K})^{\chi}_{\chi}$	
Total expected gauge generators:		21

Massive spectrum



?

 $k^{\mu} = (p, 0, 0, p)$



(Not yet implemented in PSALTer)

...

<u>Unitarity</u> <u>conditions</u>

 $r_{2} < 0 \&\& t_{2} > 0 \&\& \left(\left(r_{3} < 0 \&\& \left(r_{5} < -\frac{r_{3}}{2} \parallel r_{5} > -2 r_{3}\right)\right) \parallel \left(r_{3} > 0 \&\& -2 r_{3} < r_{5} < -\frac{r_{3}}{2}\right)\right)$

<u>Validity</u> <u>assumptions</u>

(Not yet implemented in PSALTer)