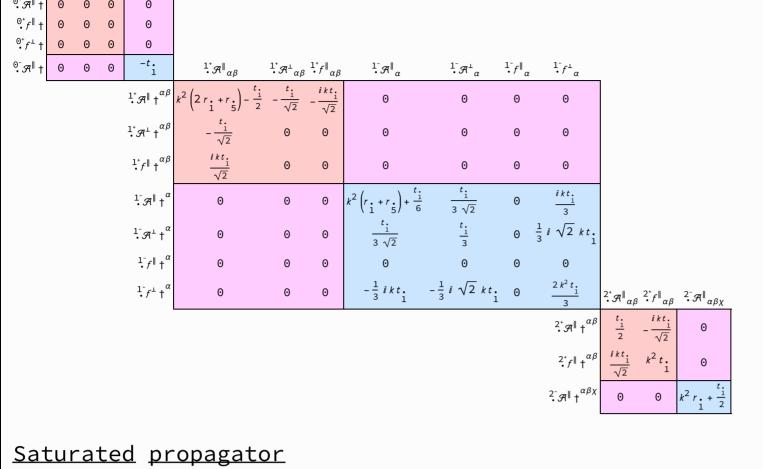
### $8\,r_{.}\,\partial_{\beta}\mathcal{R}_{\alpha\,i\,\theta}\,\partial^{\theta}\mathcal{R}^{\alpha\beta\,i} + 4\,r_{.}\,\partial_{\beta}\mathcal{R}_{\alpha\,\theta\,i}\,\partial^{\theta}\mathcal{R}^{\alpha\beta\,i} - 16\,r_{.}\,\partial_{\beta}\mathcal{R}_{\,i\,\theta\,\alpha}\,\partial^{\theta}\mathcal{R}^{\alpha\beta\,i} - 4\,r_{.}\,\partial_{i}\mathcal{R}_{\,\alpha\beta\,\theta}\,\partial^{\theta}\mathcal{R}^{\alpha\beta\,i} + 4\,r_{.}\,\partial_{\theta}\mathcal{R}_{\,\alpha\beta\,i}\,\partial^{\theta}\mathcal{R}^{\alpha\beta\,i} + 4\,r_{.}\,\partial_{\theta}\mathcal{R}_{\,\alpha\beta\,i}\,\partial^{\theta}\mathcal{R}^{\,\alpha\beta\,i} + 4\,r_{.}\,\partial_{\theta}\mathcal{R}_{\,\alpha\beta\,i}\,\partial^{\theta}\mathcal{R}^{\alpha\beta\,i} + 4\,r_{.}\,\partial_{\theta}\mathcal{R$ $6 \underset{5}{r} \cdot \partial_{i} \mathcal{R}_{\theta}^{\phantom{i} \kappa} \delta^{\theta} \mathcal{R}^{\alpha \prime}_{\phantom{\alpha} \alpha} - 6 \underset{5}{r} \cdot \partial_{\theta} \mathcal{R}_{\phantom{\alpha} \kappa}^{\phantom{\alpha} \kappa} \delta^{\theta} \mathcal{R}^{\alpha \prime}_{\phantom{\alpha} \alpha} - 6 \underset{1}{t} \cdot \partial_{\alpha} f_{\phantom{\alpha} \theta} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} - 3 \underset{1}{t} \cdot \partial_{\alpha} f_{\phantom{\alpha} \theta} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta} f_{\phantom{\alpha} \alpha}^{\phantom{\alpha} \alpha} \delta^{\alpha} f^{\alpha}_{\phantom{\alpha} \alpha} \delta^{\theta} f^{\alpha \prime}_{\phantom{\alpha} \alpha} + 3 \underset{1}{t} \cdot \partial_{\theta}$ Wave operator

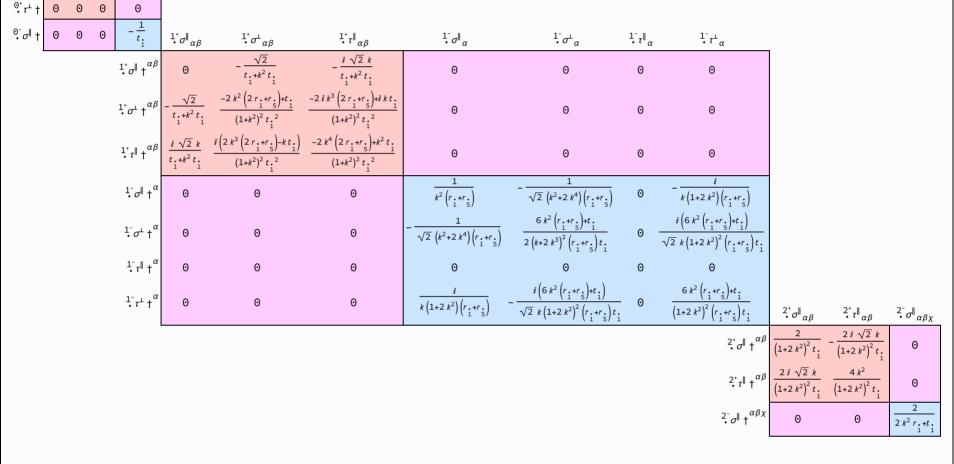
## ${\stackrel{0^{\scriptscriptstyle +}}{\cdot}}_{\stackrel{\bullet}{\cdot}}\mathcal{A}^{\parallel} {\stackrel{0^{\scriptscriptstyle +}}{\cdot}}_{\stackrel{\bullet}{\cdot}}f^{\parallel} {\stackrel{0^{\scriptscriptstyle +}}{\cdot}}_{\stackrel{\bullet}{\cdot}}f^{\perp} {\stackrel{0^{\scriptscriptstyle -}}{\cdot}}_{\stackrel{\bullet}{\cdot}}\mathcal{A}^{\parallel}$

PSALTer results panel



### ${\overset{0^{+}}{\cdot}}\sigma^{\parallel} {\overset{0^{+}}{\cdot}}\tau^{\parallel} {\overset{0^{+}}{\cdot}}\tau^{\perp}$

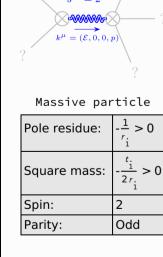
0



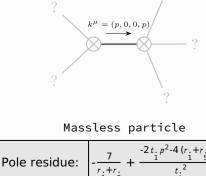
Source constraints

Spin-parity form	Covariant form	Multiplicities
<sup>0⁺</sup> σ <sup>  </sup> == 0	$\partial_{\beta}\sigma_{\ \alpha}^{\alpha\ \beta} == 0$	1
<sup>0+</sup> τ <sup>  </sup> == Θ	$\partial_{\beta}\partial_{\alpha}\tau \left(\Delta + \mathcal{K}\right)^{\alpha\beta} == \partial_{\beta}\partial^{\beta}\tau \left(\Delta + \mathcal{K}\right)^{\alpha}_{\alpha}$	1
0 <sup>+</sup> r <sup>⊥</sup> == 0	$\partial_{\beta}\partial_{\alpha}\tau \left(\Delta+\mathcal{K}\right)^{\alpha\beta}=0$	1
$2 i k \frac{1}{\cdot} \sigma^{\perp}^{\alpha} + \frac{1}{\cdot} \tau^{\perp}^{\alpha} == 0$	$\partial_{\chi}\partial_{\beta}\partial^{\alpha}_{\tau}\left(\Delta+\mathcal{K}\right)^{\beta\chi} == \partial_{\chi}\partial^{\chi}\partial_{\beta\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\beta} + 2\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial_{\beta}\sigma^{\beta\alpha\chi}$	3
1- <sub>7</sub>    <sup>α</sup> == 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
$i k \int_{\bullet}^{1^{+}} \sigma^{\perp} \alpha^{\beta} + \int_{\bullet}^{1^{+}} \tau^{\parallel} \alpha^{\beta} = 0$	$\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)^{\beta\alpha} + 2 \ \partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\chi\alpha\delta} = - \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\chi} + \partial_{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\chi} + \partial_{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\chi} + \partial_{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\chi} + \partial_{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\chi} + \partial_{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\chi} + \partial_{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\partial^{\chi}{}_{\tau}\left(\Delta+\mathcal{K}\right)^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha} + \partial_{\chi}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi\alpha}\partial^{\chi$	3
$-2 i k _{\bullet}^{2^{+}} \sigma^{\parallel}^{\alpha\beta} + 2_{\bullet}^{+} \tau^{\parallel}^{\alpha\beta} == 0$	$-i\left(4\ \partial_{\delta}\partial_{\chi}\partial^{\beta}\partial^{\alpha}_{\tau}\left(\Delta+\mathcal{K}\right)^{\chi\delta}+2\ \partial_{\delta}\partial^{\delta}\partial^{\beta}\partial^{\alpha}_{\tau}\left(\Delta+\mathcal{K}\right)^{\chi}_{\ \chi}-3\ \partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}_{\tau}\left(\Delta+\mathcal{K}\right)^{\beta\chi}-3\ \partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\alpha}_{\tau}\left(\Delta+\mathcal{K}\right)^{\chi\beta}-3\ \partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}_{\tau}\left(\Delta+\mathcal{K}\right)^{\alpha\chi}-3\ \partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\beta}_{\tau}\left(\Delta+\mathcal{K}\right)^{\chi\alpha}+3\ \partial_{\delta}\partial^{\alpha}\partial_{\chi}\partial^{\alpha}_{\tau}\partial^{\alpha$	5
	$3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}{}_{\tau}(\Delta+\mathcal{H})^{\alpha\beta} + 3\partial_{\delta}\partial^{\delta}\partial_{\chi}\partial^{\chi}{}_{\tau}(\Delta+\mathcal{H})^{\beta\alpha} + 4ik^{\chi}\partial_{\epsilon}\partial_{\chi}\partial^{\beta}\partial^{\alpha}\sigma^{\delta}{}_{\delta}^{\epsilon} - 6ik^{\chi}\partial_{\epsilon}\partial_{\delta}\partial_{\chi}\partial^{\alpha}\sigma^{\delta\beta\epsilon} - 6ik^{\chi}\partial_{\epsilon}\partial_{\delta}\partial_{\chi}\partial^{\beta}\sigma^{\delta\alpha\epsilon} +$	
	$6 \ \emph{i} \ \emph{k}^{X} \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial_{\chi} \sigma^{\alpha\beta\delta} + 6 \ \emph{i} \ \emph{k}^{X} \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial_{\chi} \sigma^{\beta\alpha\delta} + 2 \ \eta^{\alpha\beta} \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial_{\chi} \tau \ (\Delta + \mathcal{K})^{X\delta} - 2 \ \eta^{\alpha\beta} \ \partial_{\epsilon} \partial^{\epsilon} \partial_{\delta} \partial^{\delta} \tau \ (\Delta + \mathcal{K})^{X}_{\ \chi} - 4 \ \emph{i} \ \eta^{\alpha\beta} \ \emph{k}^{X} \ \partial_{\phi} \partial^{\phi} \partial_{\epsilon} \partial_{\chi} \sigma^{\delta}_{\ \delta} = 0$	
Total expected gauge generators:		17

<u>Massive</u> <u>spectrum</u>



Massless spectrum



<u>Gauge symmetries</u>

Polarisations:

# (Not yet implemented in PSALTer)

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

## r. < 0 && r. < -r. && t. > 0

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

# (Not yet implemented in PSALTer)