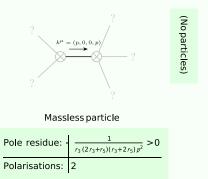
## **Particle spectrograph**

## **Wave operator and propagator**

Trave operator and propagator													
Multiplicities	1	1	8	т П	е	е	rv.				S	24	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Spin-parity form Covariant form	$\begin{array}{ccc} *^2 & & \\ 0^+ & = & 0 & \\ \end{array} \qquad \begin{array}{ccc} \partial_\beta \partial_\alpha \tau^{\alpha\beta} = & 0 & \\ \end{array}$		$\frac{\#^2}{1 \cdot \tau} + 2 i k_1^{\#^2} \sigma^2 = 0 \int_{\lambda} \partial_{\rho} \partial_{\tau} t^{\beta \chi} = \tilde{Q}_{\rho} \partial^{\chi} \partial_{\beta} t^{\alpha \beta} + 2 \partial_{\sigma} \partial^{\sigma} \partial_{\chi} \partial_{\beta} \sigma^{\alpha \beta \chi}$				$ \frac{\#1}{2} \frac{\alpha \beta \chi}{\sigma} == 0 \qquad 3 \qquad \partial_{\varepsilon} \partial_{\delta} \partial^{\chi} \partial^{\alpha} \sigma^{\beta \delta \varepsilon} + 3 \ \partial_{\varepsilon} \partial^{\varepsilon} \partial^{\chi} \partial^{\alpha} \sigma^{\beta \delta}_{\delta} + 2 \ \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\beta} \sigma^{\alpha \chi \delta} + 4 \ \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\chi} \sigma^{\alpha \beta \delta} + 2 \ \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\beta} \sigma^{\chi \delta \alpha} + 4 \ \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\chi} \sigma^{\alpha \beta \delta} + 2 \ \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\beta} \partial^{\chi} \sigma^{\chi \delta} + 3 \ \eta^{\beta \chi} \ \partial_{\delta} \partial^{\beta} \partial_{\varepsilon} \partial^{\alpha} \sigma^{\delta \varepsilon} + $	$3  n^{\alpha\chi}  \partial_{\varphi} \partial^{\varphi} \partial_{\varepsilon} \partial_{\varphi} \partial^{\beta \delta \varepsilon} + 3  n^{\beta\chi}  \partial_{\varphi} \partial^{\varphi} \partial_{\varepsilon} \partial^{\varepsilon} \sigma^{\alpha \delta}_{\delta} = =$ $3  \partial_{\varepsilon} \partial_{\varphi} \partial^{\varphi} \partial^{\alpha \delta \varepsilon} + 3  \partial_{\varepsilon} \partial^{\varepsilon} \partial^{\gamma} \partial^{\beta} \sigma^{\alpha \delta}_{\delta} + 2  \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\varphi} \partial^{\beta} \partial^{\delta} +$	$4  \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\alpha} \sigma^{B \delta \chi} + 2  \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\alpha} \sigma^{\chi \delta \beta} + 2  \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\chi} \sigma^{B \delta \alpha} + \\ 4  \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\delta} \sigma^{\alpha \beta \chi} + 2  \partial_{\varepsilon} \partial^{\varepsilon} \partial_{\delta} \partial^{\alpha} \sigma^{\alpha \chi \beta} + 3   \eta^{\alpha \chi}  \partial_{\delta} \partial^{\phi} \partial_{\varepsilon} \partial^{\beta} \partial^{\phi} \partial^{\varepsilon}_{\kappa} +$	$3  \eta^{eta\chi}  \partial_\phi \partial^\phi \partial_\varepsilon \partial_\delta \sigma^{\alpha \delta \varepsilon} + 3  \eta^{\alpha \chi}  \partial_\phi \partial^\phi \partial_\varepsilon \partial^\varepsilon \sigma^{\delta \delta} \delta$		Total expected gauge generators:	$S == \iiint \left(\frac{1}{6} \left(-4t_3 \mathcal{A}^{\alpha}_{\alpha} \mathcal{A}_{\beta}^{\ \theta} + 6 f^{\alpha\beta} t_{\alpha\beta} + 6 \mathcal{A}^{\alpha\beta\chi} \mathcal{A}_{\alpha\beta\chi} + 8 t_3 \mathcal{A}_{\alpha\beta}^{\ \theta} \partial f^{\alpha} - 8 t_3 \mathcal{A}_{\beta}^{\ \theta} \partial f^{\alpha}_{\alpha} - 8 t_3 \mathcal{A}_{\beta}^{\ \theta} \partial f^{\alpha}_{\alpha} - 8 t_3 \mathcal{A}_{\beta}^{\ \theta} \partial f^{\alpha}_{\alpha} - 8 t_3 \partial_{\beta}^{\ \theta} \partial_{\beta}^{\ \theta} - 8 t_3 \partial_{\beta}^{\ \theta} \partial_{\beta}^{\ \theta} - 8 t_3 \partial_{\beta}^{\ \alpha} \partial_{\beta}^{\ \theta} - 8 t_3 \partial_{\beta}^{\ \alpha} \partial_{\beta}^{\ \theta} \partial_{\beta}^{\ \theta} - 8 t_3 \partial_{\beta}^{\ \alpha} \partial_{\beta}^{\ \theta} \partial_{\beta}^{\ \theta} - 8 t_3 \partial_{\beta}^{\ \alpha} \partial_{\beta}^{\ \theta} \partial_{\beta}^{\ \theta} \partial_{\beta}^{\ \theta} + 6 t_3 \partial_{\beta}^{\ \alpha} \partial_{\beta}^{\ \theta} \partial_$

## Massive and massless spectra



## **Unitarity conditions**

