PSALTer results panel

$$\mathcal{S} == \int\int\int\int \left(\mathcal{B}^{\alpha} \; \mathcal{T}_{\alpha} + \alpha_{.}{}_{2} \, \partial_{\alpha} \mathcal{B}^{\alpha} \, \partial_{\beta} \mathcal{B}^{\beta} + \alpha_{.}{}_{1} \, \partial_{\beta} \mathcal{B}_{\alpha} \, \partial^{\beta} \mathcal{B}^{\alpha} \right) [t, x, y, z] \, dz \, dy \, dx \, dt$$

Wave operator

$$\begin{array}{c|c|c} & {}^{0^+}_{\cdot}\mathcal{B} & \\ \hline {}^{0^+}_{\cdot}\mathcal{B} \dagger & \left(\alpha_{.}{}_{1} + \alpha_{.}{}_{2}\right) k^2 & {}^{1^-}_{\cdot}\mathcal{B}_{\alpha} \\ \hline & {}^{1^-}_{\cdot}\mathcal{B} \dagger^{\alpha} & \alpha_{.}{}_{1} \, k^2 \end{array}$$

Saturated propagator

$$\begin{array}{c|c|c} & {}^{0^+}_{\cdot}\mathcal{J} & \\ \hline {}^{0^+}_{\cdot}\mathcal{J} \dagger & \frac{1}{\left(\alpha_{.}{}_{1}+\alpha_{.}{}_{2}\right) k^2} & {}^{1^-}_{\cdot}\mathcal{J}_{\alpha} \\ \hline & {}^{1^-}_{\cdot}\mathcal{J} \dagger^{\alpha} & \frac{1}{\alpha_{.}{}_{1} \, k^2} \end{array}$$

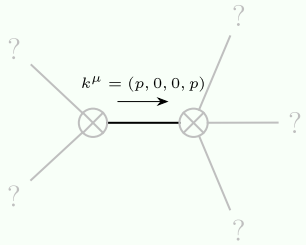
Source constraints

(No source constraints)

Massive spectrum

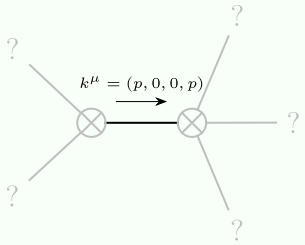
(No particles)

Massless spectrum



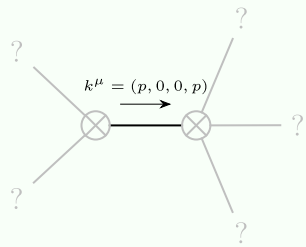
Massless particle

Pole residue:	$-\frac{1}{\alpha_{.}{}_{1}} - \frac{1}{\alpha_{.}{}_{1}+\alpha_{.}{}_{2}} > 0$
Polarisations:	1



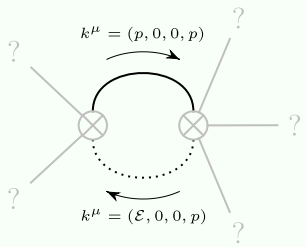
Massless particle

Pole residue:	$-\frac{1}{\alpha_{.}{}_{1}} > 0$
Polarisations:	2



Massless particle

Pole residue:	$\frac{1}{\alpha_{.}{}_{1}} + \frac{1}{\alpha_{.}{}_{1}+\alpha_{.}{}_{2}} > 0$
Polarisations:	1



Quartic pole

Pole residue:	$0 < -\frac{\alpha_{.}{}_{2} \, p^2}{\alpha_{.}{}_{1} \, (\alpha_{.}{}_{1}+\alpha_{.}{}_{2})}$ && $-\frac{\alpha_{.}{}_{2} \, p^2}{\alpha_{.}{}_{1} \, (\alpha_{.}{}_{1}+\alpha_{.}{}_{2})} > 0$
Polarisations:	1

Unitarity conditions

(Demonstrably impossible)