PSALTer results panel

$$\mathcal{S} == \iiiint \Big(\alpha_{2}\, h_{\alpha\beta}\, h^{\alpha\beta} - \alpha_{3}\, h^{\alpha}{}_{\alpha}\, h^{\beta}{}_{\beta} + h^{\alpha\beta}\, \mathcal{T}_{\alpha\beta} + \frac{1}{2}\,\alpha_{1}\Big(\partial_{\beta}h^{\chi}{}_{\chi}\,\partial^{\beta}h^{\alpha}{}_{\alpha} + 2\,\partial_{\alpha}h^{\alpha\beta}\,\partial_{\chi}h_{\beta}{}^{\chi} - 2\,\partial^{\beta}h^{\alpha}{}_{\alpha}\,\partial_{\chi}h_{\beta}{}^{\chi} - \partial_{\chi}h_{\alpha\beta}\,\partial^{\chi}h^{\alpha\beta}\Big)\Big)[t,\, x,\, y,\, z]\, dz\, dy\, dx\, dt$$

Wave operator

$$\begin{array}{c|cc|c|c}
 & {}^{0^+}h^{\perp} & {}^{0^+}h^{\parallel} & {}^{1^-}h^{\perp}{}_{\alpha} & {}^{2^+}h^{\parallel}{}_{\alpha\beta} \\ \hline
{}^{0^+}h^{\perp}\,\dagger & \alpha_{2} - \alpha_{3} & -\sqrt{3}\,\alpha_{3} & & \\
{}^{0^+}h^{\parallel}\,\dagger & -\sqrt{3}\,\alpha_{3} & \alpha_{2} - 3\,\alpha_{3} + \alpha_{1}\,k^{2} & & \\ \hline
{}^{1^-}h^{\perp}\,\dagger^{\alpha} & & & \alpha_{2} & \\ \hline
{}^{2^+}h^{\parallel}\,\dagger^{\alpha\beta} & & & & \alpha_{2} - \frac{\alpha_{1}\,k^{2}}{2}
\end{array}$$

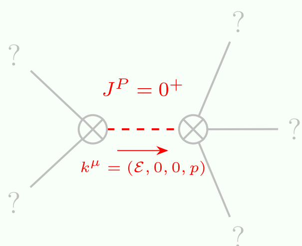
Saturated propagator

$$\begin{array}{c|cc|c|c}
 & {}^{0^+}\mathcal{T}^{\perp} & {}^{0^+}\mathcal{T}^{\parallel} & {}^{1^-}\mathcal{T}^{\perp}{}_{\alpha} & {}^{2^+}\mathcal{T}^{\parallel}{}_{\alpha\beta} \\ \hline
{}^{0^+}\mathcal{T}^{\perp}\,\dagger & \frac{1}{\alpha_{2}+\alpha_{3}\left(-1-\frac{3\,\alpha_{3}}{\alpha_{2}-3\,\alpha_{3}+\alpha_{1}\,k^{2}}\right)} & \frac{\sqrt{3}\,\alpha_{3}}{\alpha_{2}\left(\alpha_{2}-4\,\alpha_{3}\right)+\alpha_{1}\left(\alpha_{2}-\alpha_{3}\right)k^{2}} & & \\
{}^{0^+}\mathcal{T}^{\parallel}\,\dagger & \frac{\sqrt{3}\,\alpha_{3}}{\alpha_{2}\left(\alpha_{2}-4\,\alpha_{3}\right)+\alpha_{1}\left(\alpha_{2}-\alpha_{3}\right)k^{2}} & \frac{1}{\frac{\alpha_{2}\left(\alpha_{2}-4\,\alpha_{3}\right)}{\alpha_{2}-\alpha_{3}}+\alpha_{1}\,k^{2}} & & \\ \hline
{}^{1^-}\mathcal{T}^{\perp}\,\dagger^{\alpha} & & & \frac{1}{\alpha_{2}} & \\ \hline
{}^{2^+}\mathcal{T}^{\parallel}\,\dagger^{\alpha\beta} & & & & \frac{1}{\alpha_{2}-\frac{\alpha_{1}\,k^{2}}{2}}
\end{array}$$

Source constraints

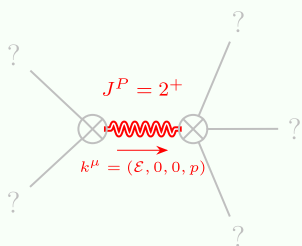
(No source constraints)

Massive spectrum



Massive particle

Pole residue:	$\frac{\alpha_{2}^{2}-2\,\alpha_{2}\,\alpha_{3}+4\,\alpha_{3}^{2}}{\alpha_{1}\,(\alpha_{2}-\alpha_{3})^{2}} > 0$
Square mass:	$-\frac{\alpha_{2}\,(\alpha_{2}-4\,\alpha_{3})}{\alpha_{1}\,(\alpha_{2}-\alpha_{3})} > 0$
Spin:	0
Parity:	Even



Massive particle

Pole residue:	$-\frac{2}{\alpha_{1}} > 0$
Square mass:	$\frac{2\,\alpha_{2}}{\alpha_{1}} > 0$
Spin:	2
Parity:	Even

Massless spectrum

(No particles)

Unitarity conditions

(Demonstrably impossible)