PSALTer results panel

$$\mathcal{S} == \int\int\int\int (h^{\alpha\beta} \mathcal{T}_{\alpha\beta} + \frac{1}{2} \alpha._1 \partial_\beta h^\chi{}_\chi \partial^\beta h^\alpha{}_\alpha + \alpha._1 (\partial_\alpha h^{\alpha\beta} - \partial^\beta h^\alpha{}_\alpha) \partial_\chi h_\beta{}^\chi - \frac{1}{2} \alpha._2 \partial_\chi h_{\alpha\beta} \partial^\chi h^{\alpha\beta}) [t, x, y, z] \mathrm{d}z \, \mathrm{d}y \, \mathrm{d}x \, \mathrm{d}t$$

Wave operator

	$0^+_. h^\perp$	$0^+_. h^\parallel$	$1^-_. h^\perp{}_\alpha$	$2^+_. h^\parallel{}_{\alpha\beta}$
$0^+_. h^\perp \dagger$	$\frac{1}{2} (\alpha._1 - \alpha._2) k^2$	0		
$0^+_. h^\parallel \dagger$	0	$\frac{1}{2} (3 \alpha._1 - \alpha._2) k^2$		
$1^-_. h^\perp{}^\alpha \dagger$			$\frac{1}{2} (\alpha._1 - \alpha._2) k^2$	
$2^+_. h^\parallel{}^{\alpha\beta} \dagger$				$-\frac{\alpha._2 k^2}{2}$

Saturated propagator

	$0^+_. \mathcal{T}^\perp$	$0^+_. \mathcal{T}^\parallel$	$1^-_. \mathcal{T}^\perp{}_\alpha$	$2^+_. \mathcal{T}^\parallel{}_{\alpha\beta}$
$0^+_. \mathcal{T}^\perp \dagger$	$\frac{2}{(\alpha._1 - \alpha._2) k^2}$	0		
$0^+_. \mathcal{T}^\parallel \dagger$	0	$\frac{2}{(3 \alpha._1 - \alpha._2) k^2}$		
$1^-_. \mathcal{T}^\perp{}^\alpha \dagger$			$\frac{2}{(\alpha._1 - \alpha._2) k^2}$	
$2^+_. \mathcal{T}^\parallel{}^{\alpha\beta} \dagger$				$-\frac{2}{\alpha._2 k^2}$

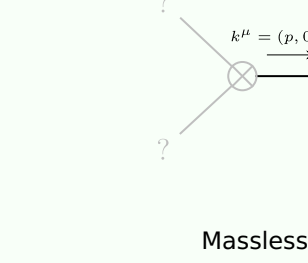
Source constraints

(No source constraints)

Massive spectrum

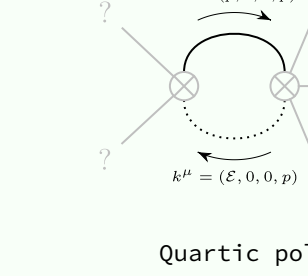
(No particles)

Massless spectrum



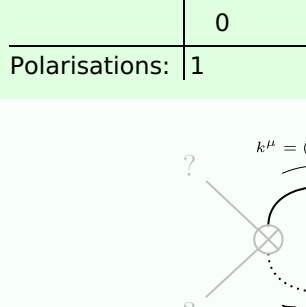
Massless particle

Pole residue:	$-\frac{(\alpha._1 - 2 \alpha._2) p^2}{(\alpha._1 - \alpha._2) \alpha._2} > 0$
Polarisations:	2



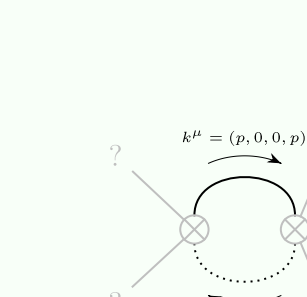
Massless particle

Pole residue:	$\frac{(\alpha._1 - 2 \alpha._2) p^2}{(\alpha._1 - \alpha._2) \alpha._2} > 0$
Polarisations:	2



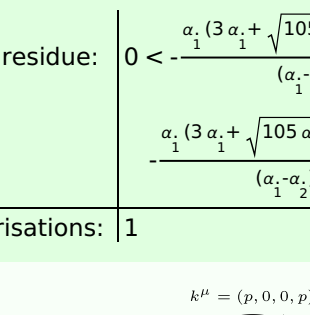
Massless particle

Pole residue:	$-\frac{p^2}{\alpha._2} > 0$
Polarisations:	2



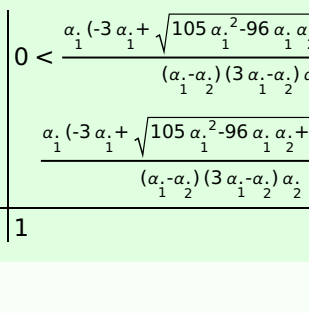
Massless particle

Pole residue:	$-\frac{(\alpha._1^2 - 6 \alpha._1 \alpha._2 + 2 \alpha._2^2) p^2}{(\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2} > 0$
Polarisations:	1



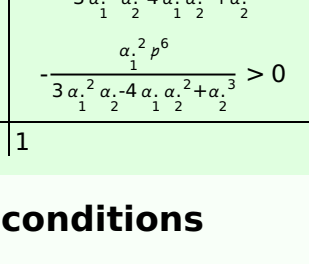
Massless particle

Pole residue:	$\frac{(\alpha._1^2 - 6 \alpha._1 \alpha._2 + 2 \alpha._2^2) p^2}{(\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2} > 0$
Polarisations:	1



Massless particle

Pole residue:	$-(((2 \alpha._1^2 - 5 \alpha._1 \alpha._2 + 2 \alpha._2^2 + \sqrt{(\alpha._1^2 (4 \alpha._1^2 - 8 \alpha._1 \alpha._2 + 5 \alpha._2^2))}) p^2) / ((\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2) > 0$
Polarisations:	1



Massless particle

Pole residue:	$((-2 \alpha._1^2 + 5 \alpha._1 \alpha._2 - 2 \alpha._2^2 + \sqrt{(\alpha._1^2 (4 \alpha._1^2 - 8 \alpha._1 \alpha._2 + 5 \alpha._2^2))}) p^2) / ((\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2) > 0$
Polarisations:	1

Quartic pole

Pole residue:	$0 < -\frac{\alpha._1 p^4}{(\alpha._1 - \alpha._2) \alpha._2}$ && $-\frac{\alpha._1 p^4}{(\alpha._1 - \alpha._2) \alpha._2} > 0$
Polarisations:	2

Quartic pole

Pole residue:	$0 < -\frac{\alpha._1 (3 \alpha._1 + \sqrt{105 \alpha._1^2 - 96 \alpha._1 \alpha._2 + 48 \alpha._2^2}) p^4}{(\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2}$ && $-\frac{\alpha._1 (3 \alpha._1 + \sqrt{105 \alpha._1^2 - 96 \alpha._1 \alpha._2 + 48 \alpha._2^2}) p^4}{(\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2} > 0$
Polarisations:	1

Quartic pole

Pole residue:	$0 < \frac{\alpha._1 (-3 \alpha._1 + \sqrt{105 \alpha._1^2 - 96 \alpha._1 \alpha._2 + 48 \alpha._2^2}) p^4}{(\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2}$ && $\frac{\alpha._1 (-3 \alpha._1 + \sqrt{105 \alpha._1^2 - 96 \alpha._1 \alpha._2 + 48 \alpha._2^2}) p^4}{(\alpha._1 - \alpha._2) (3 \alpha._1 - \alpha._2) \alpha._2} > 0$
Polarisations:	1

Hexic pole

Pole residue:	$0 < -\frac{\alpha._1^2 p^6}{3 \alpha._1^2 \alpha._2 - 4 \alpha._1 \alpha._2^2 + \alpha._2^3}$ && $-\frac{\alpha._1^2 p^6}{3 \alpha._1^2 \alpha._2 - 4 \alpha._1 \alpha._2^2 + \alpha._2^3} > 0$
Polarisations:	1

Unitarity conditions

(Demonstrably impossible)