PSALTer results panel

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

Wave operator

	$0^+_{\cdot} h^{\perp}$	$0^+_{\cdot} h^{\parallel}$	$1^-_{\cdot} h^{\perp}{}_{\alpha}$	$2^+_{\cdot} h^{\parallel}{}_{\alpha\beta}$
$0^+_{\cdot} h^{\perp}\,\dagger$	$(-\alpha_{1} + \alpha_{2})\, k^2$	0		
$0^+_{\cdot} h^{\parallel}\,\dagger$	0	$\alpha_{1}\, k^2$		
$1^-_{\cdot} h^{\perp}{}^{\alpha}\,\dagger$			$\frac{1}{2}\, (-\alpha_{1} + \alpha_{2})\, k^2$	
$2^+_{\cdot} h^{\parallel}{}^{\alpha\beta}\,\dagger$				$-\frac{\alpha_{1}\, k^2}{2}$

Saturated propagator

	$0^+_{\cdot} \mathcal{T}^{\perp}$	$0^+_{\cdot} \mathcal{T}^{\parallel}$	$1^-_{\cdot} \mathcal{T}^{\perp}{}_{\alpha}$	$2^+_{\cdot} \mathcal{T}^{\parallel}{}_{\alpha\beta}$
$0^+_{\cdot} \mathcal{T}^{\perp}\,\dagger$	$\frac{1}{(-\alpha_{1}+\alpha_{2})\, k^2}$	0		
$0^+_{\cdot} \mathcal{T}^{\parallel}\,\dagger$	0	$\frac{1}{\alpha_{1}\, k^2}$		
$1^-_{\cdot} \mathcal{T}^{\perp}{}^{\alpha}\,\dagger$			$-\frac{2}{(\alpha_{1}-\alpha_{2})\, k^2}$	
$2^+_{\cdot} \mathcal{T}^{\parallel}{}^{\alpha\beta}\,\dagger$				$-\frac{2}{\alpha_{1}\, k^2}$

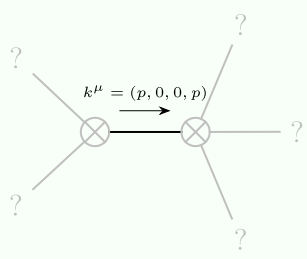
Source constraints

(No source constraints)

Massive spectrum

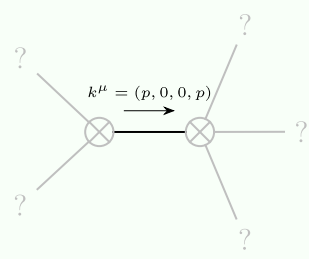
(No particles)

Massless spectrum



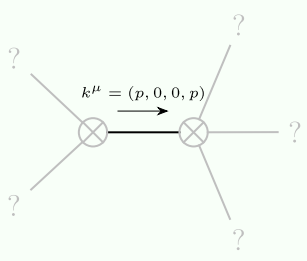
Massless particle

Pole residue:	$-\frac{p^2}{\alpha_{1}} > 0$
Polarisations:	2



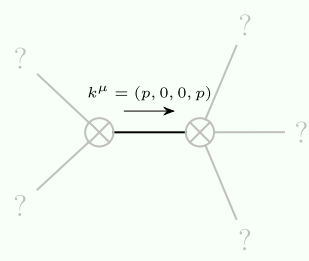
Massless particle

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



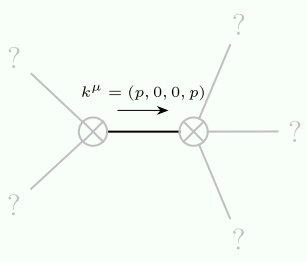
Massless particle

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



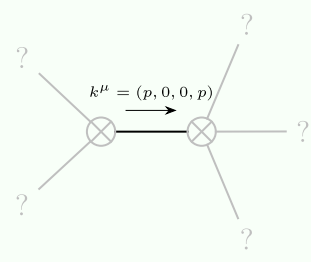
Massless particle

Pole residue:	$\frac{(-6\, \alpha_{1}+\alpha_{2})\, p^2}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} > 0$
Polarisations:	1



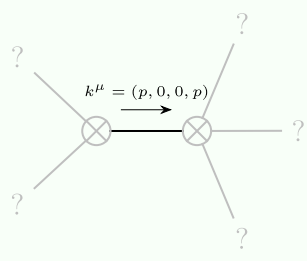
Massless particle

Pole residue:	$\frac{(6\, \alpha_{1}-\alpha_{2})\, p^2}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} > 0$
Polarisations:	1



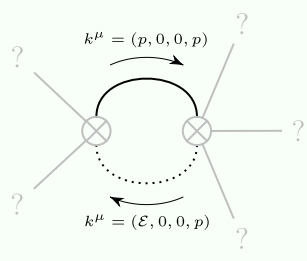
Massless particle

Pole residue:	$\frac{(-2\, \alpha_{1}+\alpha_{2}-\sqrt{20\, \alpha_{1}^2-36\, \alpha_{1}\, \alpha_{2}+17\, \alpha_{2}^2})\, p^2}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} > 0$
Polarisations:	1



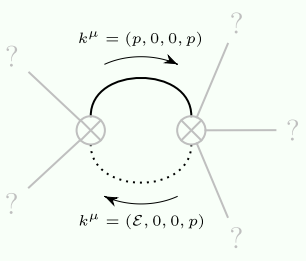
Massless particle

Pole residue:	$\frac{(2\, \alpha_{1}+\alpha_{2}+\sqrt{20\, \alpha_{1}^2-36\, \alpha_{1}\, \alpha_{2}+17\, \alpha_{2}^2})\, p^2}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} > 0$
Polarisations:	1



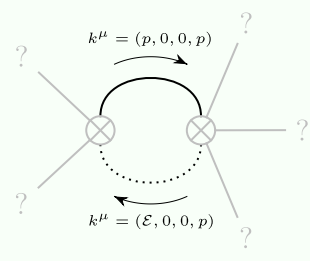
Quartic pole

Pole residue:	$0 < \frac{\alpha_{2}\, p^4}{\alpha_{1}^2-\alpha_{1}\, \alpha_{2}}$ && $\frac{\alpha_{2}\, p^4}{\alpha_{1}^2-\alpha_{1}\, \alpha_{2}} > 0$
Polarisations:	2



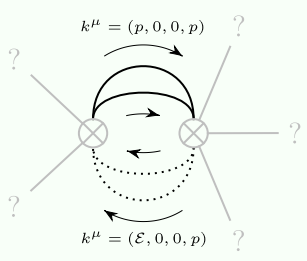
Quartic pole

Pole residue:	$0 < \frac{1}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} (6\, \alpha_{1} + 3\, \alpha_{2} - \sqrt{3}\, \sqrt{(76\, \alpha_{1}^2 - 116\, \alpha_{1}\, \alpha_{2} + 83\, \alpha_{2}^2)})\, p^4$ && $\frac{1}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} (6\, \alpha_{1} + 3\, \alpha_{2} - \sqrt{3}\, \sqrt{(76\, \alpha_{1}^2 - 116\, \alpha_{1}\, \alpha_{2} + 83\, \alpha_{2}^2)})\, p^4 > 0$
Polarisations:	1



Quartic pole

Pole residue:	$0 < \frac{1}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} (6\, \alpha_{1} + 3\, \alpha_{2} + \sqrt{3}\, \sqrt{(76\, \alpha_{1}^2 - 116\, \alpha_{1}\, \alpha_{2} + 83\, \alpha_{2}^2)})\, p^4$ && $\frac{1}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} (6\, \alpha_{1} + 3\, \alpha_{2} + \sqrt{3}\, \sqrt{(76\, \alpha_{1}^2 - 116\, \alpha_{1}\, \alpha_{2} + 83\, \alpha_{2}^2)})\, p^4 > 0$
Polarisations:	1



Hexic pole

Pole residue:	$0 < \frac{(2\, \alpha_{1}+\alpha_{2})\, p^6}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})}$ && $\frac{(2\, \alpha_{1}+\alpha_{2})\, p^6}{\alpha_{1}\, (\alpha_{1}-\alpha_{2})} > 0$
Polarisations:	1

Unitarity conditions

(Demonstrably impossible)