PSALTer results panel

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

Wave operator

	$\overset{0^+}{\cdot} h^{\perp}$	$\overset{0^+}{\cdot} h^{\parallel}$	$\overset{1^-}{\cdot} h^{\perp}{}_{\alpha}$	$\overset{2^+}{\cdot} h^{\parallel}{}_{\alpha\beta}$
$\overset{0^+}{\cdot} h^{\perp}\,\dagger$	$\frac{1}{2}\left(\alpha_{\cdot 1} - \alpha_{\cdot 2}\right)k^2$	0		
$\overset{0^+}{\cdot} h^{\parallel}\,\dagger$	0	$\frac{1}{2}\left(3\,\alpha_{\cdot 1} - \alpha_{\cdot 2}\right)k^2$		
$\overset{1^-}{\cdot} h^{\perp}{}^{\alpha}\,\dagger$			$\frac{1}{2}\left(\alpha_{\cdot 1} - \alpha_{\cdot 2}\right)k^2$	
$\overset{2^+}{\cdot} h^{\parallel}{}^{\alpha\beta}\,\dagger$				$-\frac{\alpha_{\cdot 2}\,k^2}{2}$

Saturated propagator

	$\overset{0^+}{\cdot}\mathcal{T}^{\perp}$	$\overset{0^+}{\cdot}\mathcal{T}^{\parallel}$	$\overset{1^-}{\cdot}\mathcal{T}^{\perp}{}_{\alpha}$	$\overset{2^+}{\cdot}\mathcal{T}^{\parallel}{}_{\alpha\beta}$
$\overset{0^+}{\cdot}\mathcal{T}^{\perp}\,\dagger$	$\frac{2}{\left(\alpha_{\cdot 1}-\alpha_{\cdot 2}\right)k^2}$	0		
$\overset{0^+}{\cdot}\mathcal{T}^{\parallel}\,\dagger$	0	$\frac{2}{\left(3\,\alpha_{\cdot 1}-\alpha_{\cdot 2}\right)k^2}$		
$\overset{1^-}{\cdot}\mathcal{T}^{\perp}{}^{\alpha}\,\dagger$			$\frac{2}{\left(\alpha_{\cdot 1}-\alpha_{\cdot 2}\right)k^2}$	
$\overset{2^+}{\cdot}\mathcal{T}^{\parallel}{}^{\alpha\beta}\,\dagger$				$-\frac{2}{\alpha_{\cdot 2}\,k^2}$

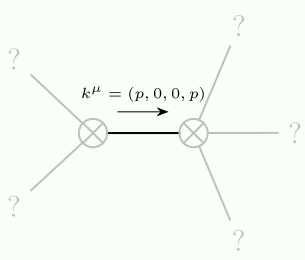
Source constraints

(No source constraints)

Massive spectrum

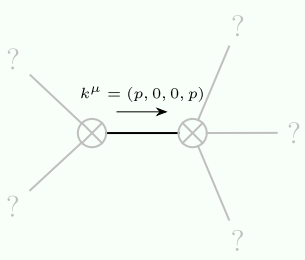
(No particles)

Massless spectrum



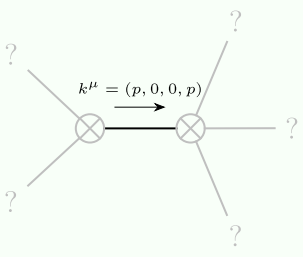
Massless particle

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



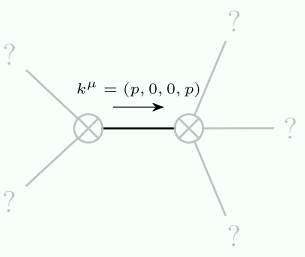
Massless particle

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



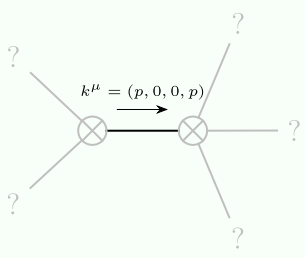
Massless particle

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



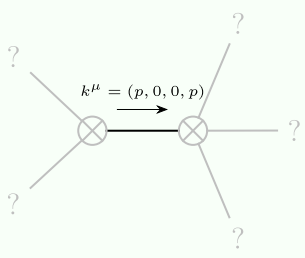
Massless particle

Pole residue:	$-\frac{(\alpha_{\cdot 1}^2-6\,\alpha_{\cdot 1}\,\alpha_{\cdot 2}+2\,\alpha_{\cdot 2}^2)\,p^2}{(\alpha_{\cdot 1}-\alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1}-\alpha_{\cdot 2})\,\alpha_{\cdot 2}} > 0$
Polarisations:	1



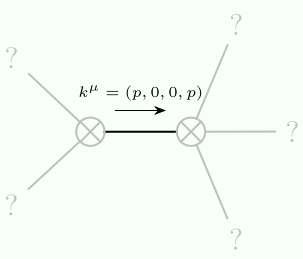
Massless particle

Pole residue:	$\frac{(\alpha_{\cdot 1}^2-6\,\alpha_{\cdot 1}\,\alpha_{\cdot 2}+2\,\alpha_{\cdot 2}^2)\,p^2}{(\alpha_{\cdot 1}-\alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1}-\alpha_{\cdot 2})\,\alpha_{\cdot 2}} > 0$
Polarisations:	1



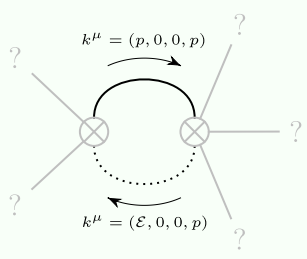
Massless particle

Pole residue:	$-(((2\,\alpha_{\cdot 1}^2 - 5\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} + 2\,\alpha_{\cdot 2}^2 + \sqrt{(\alpha_{\cdot 1}^2\,(4\,\alpha_{\cdot 1}^2 - 8\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} + 5\,\alpha_{\cdot 2}^2)))\,p^2)/((\alpha_{\cdot 1} - \alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1} - \alpha_{\cdot 2})\,\alpha_{\cdot 2})) > 0$
Polarisations:	1



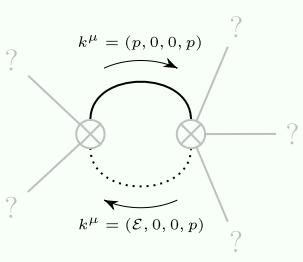
Massless particle

Pole residue:	$((-2\,\alpha_{\cdot 1}^2 + 5\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} - 2\,\alpha_{\cdot 2}^2 + \sqrt{(\alpha_{\cdot 1}^2\,(4\,\alpha_{\cdot 1}^2 - 8\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} + 5\,\alpha_{\cdot 2}^2)))\,p^2)/((\alpha_{\cdot 1} - \alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1} - \alpha_{\cdot 2})\,\alpha_{\cdot 2}) > 0$
Polarisations:	1



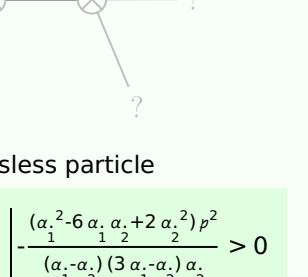
Quartic pole

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



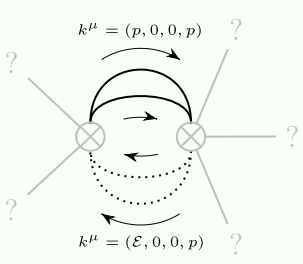
Quartic pole

Pole residue:	$0 < -\frac{\alpha_{\cdot 1}\,(3\,\alpha_{\cdot 1} + \sqrt{105\,\alpha_{\cdot 1}^2 - 96\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} + 48\,\alpha_{\cdot 2}^2})\,p^4}{(\alpha_{\cdot 1}-\alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1}-\alpha_{\cdot 2})\,\alpha_{\cdot 2}}$ && $-\frac{\alpha_{\cdot 1}\,(3\,\alpha_{\cdot 1} + \sqrt{105\,\alpha_{\cdot 1}^2 - 96\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} + 48\,\alpha_{\cdot 2}^2})\,p^4}{(\alpha_{\cdot 1}-\alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1}-\alpha_{\cdot 2})\,\alpha_{\cdot 2}} > 0$
Polarisations:	1



Quartic pole

Pole residue:	$0 < \frac{\alpha_{\cdot 1}\,(-3\,\alpha_{\cdot 1} + \sqrt{105\,\alpha_{\cdot 1}^2 - 96\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} + 48\,\alpha_{\cdot 2}^2})\,p^4}{(\alpha_{\cdot 1}-\alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1}-\alpha_{\cdot 2})\,\alpha_{\cdot 2}}$ && $\frac{\alpha_{\cdot 1}\,(-3\,\alpha_{\cdot 1} + \sqrt{105\,\alpha_{\cdot 1}^2 - 96\,\alpha_{\cdot 1}\,\alpha_{\cdot 2} + 48\,\alpha_{\cdot 2}^2})\,p^4}{(\alpha_{\cdot 1}-\alpha_{\cdot 2})\,(3\,\alpha_{\cdot 1}-\alpha_{\cdot 2})\,\alpha_{\cdot 2}} > 0$
Polarisations:	1



Hexic pole

Pole residue:	$0 < -\frac{\alpha_{\cdot 1}^2\,p^6}{3\,\alpha_{\cdot 1}^2\,\alpha_{\cdot 2} - 4\,\alpha_{\cdot 1}\,\alpha_{\cdot 2}^2 + \alpha_{\cdot 2}^3}$ && $-\frac{\alpha_{\cdot 1}^2\,p^6}{3\,\alpha_{\cdot 1}^2\,\alpha_{\cdot 2} - 4\,\alpha_{\cdot 1}\,\alpha_{\cdot 2}^2 + \alpha_{\cdot 2}^3} > 0$
Polarisations:	1

Unitarity conditions

(Demonstrably impossible)