Particle spectrograph

Wave operator and propagator

xAct`PSALTer`Private`GraphicsCollage

	$\omega_{0^{+}}^{\#1} f_{0^{+}}^{\#1} f_{0^{+}}^{\#2} \omega_{0^{-}}^{\#1}$ $\omega_{0^{+}}^{\#1} \dagger \frac{6 k^{2} r_{3}}{6 k^{2} r_{3}} = 0 0 0$ $\begin{cases} f_{0^{+}}^{\#1} \dagger & 0 0 0 \\ f_{0^{+}}^{\#2} \dagger & 0 0 0 \\ 0 0 0 0 \end{cases}$ $\omega_{0^{-}}^{\#1} \dagger = 0 0 0 k^{2} r_{2} + t_{2}$									
Join[$\omega_{1}^{\#2}{}_{\alpha\beta}$	$f_{1}^{\#1}{}_{\alpha\beta}$	$\omega_{1-\alpha}^{\#1}$	$\omega_{1-\alpha}^{\#2}$	$f_{1-\alpha}^{\#1}$	$f_{1-\alpha}^{\#2}$	
	$\omega_{1}^{\sharp 1} \dagger^{\alpha \beta}$	2 <i>t</i> 2 3		$\frac{\sqrt{2} \ t_2}{3}$	$\frac{1}{3}\bar{l}\sqrt{2}kt_2$	0	0	0	0	
	$\omega_{1}^{\sharp 1} \dagger^{\alpha \beta}$ $\omega_{1}^{\sharp 2} \dagger^{\alpha \beta}$	$\frac{\sqrt{2} t_2}{3}$		<u>t2</u> 3	<u>i kt2</u> 3	0	0	0	0	
	$f_{1+}^{\#1}\dagger^{\alpha\beta}$	$-\frac{1}{3} \bar{i} \sqrt{2}$	kt ₂	$-\frac{1}{3}ikt_2$	$\frac{k^2t_2}{3}$	0	0	0	0	ļ,
	$\omega_1^{\sharp_1}\! \uparrow^lpha$			0	0	0	0	0	0	
	$\omega_1^{#2} \dagger^{\alpha}$			0	0	0	0	0	0	
	$f_1^{#1} \dagger^{\alpha}$			0	0	0	0	0	0	
	$f_{1}^{#2} \dagger^{\alpha}$	0		0	0	0	0	0	0	
	$\omega_{2^{+}\alpha\beta}^{\#1}f_{2^{+}\alpha\beta}^{\#1}\omega_{2^{-}\alpha\beta\chi}^{\#1}$									
	$\omega_{2}^{\#1} \dagger^{\alpha \beta}$	0	0	0	l l					
	$\omega_{2}^{#1} + \alpha_{2}^{\alpha \beta}$ $f_{2}^{#1} + \alpha_{3}^{\alpha \beta}$ $\omega_{2}^{#1} + \alpha_{3}^{\alpha \beta}$	0	0	0	}					
	$\omega_2^{\#1} \dagger^{\alpha\beta}$	0	0	0						
L										

 $\{AspectRatio \rightarrow Automatic\}\]$

 $\label{eq:constraint} {\sf Join[566, \{AspectRatio \rightarrow Automatic\}, \{Null, Null\}, \{500\}]} \Big]$

Massive and massless spectra

xAct`PSALTer`Private`GraphicsCollage[{Null, Null},
Join[566, {AspectRatio → Automatic}, {Null, Null}, {500}]]

Unitarity conditions