Particle spectrograph

Wave operator and propagator

Quadratic (free) Lagrangian density

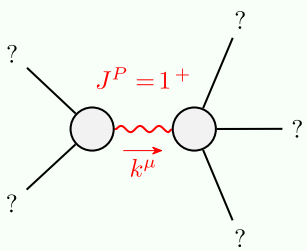
$$\beta\,\mathcal{B}_{\alpha\beta}\,\mathcal{B}^{\alpha\beta} + \mathcal{B}^{\alpha\beta}\,\mathcal{T}_{\alpha\beta} - \frac{2}{3}\,\alpha\,\partial_\beta\mathcal{B}_{\alpha\chi}\,\partial^\chi\mathcal{B}^{\alpha\beta} + \frac{1}{3}\,\alpha\,\partial_\chi\mathcal{B}_{\alpha\beta}\,\partial^\chi\mathcal{B}^{\alpha\beta}$$

	$\mathcal{T}^{\#1}_{1^+}{}^{\alpha\beta}$	$\mathcal{T}^{\#1}_{1^-}{}^{\alpha}$
$\mathcal{T}^{\#1}_{1^+}{}^{\alpha\beta}$	$\frac{1}{\beta+\frac{\alpha k^2}{3}}$	0
$\mathcal{T}^{\#1}_{1^-}{}^{\alpha}$	0	$\frac{1}{\beta}$

	$\mathcal{B}^{\#1}_{1^+}{}^{\alpha\beta}$	$\mathcal{B}^{\#1}_{1^-}{}^{\alpha}$
$\mathcal{B}^{\#1}_{1^+}{}^{\alpha\beta}$	$\beta+\frac{\alpha k^2}{3}$	0
$\mathcal{B}^{\#1}_{1^-}{}^{\alpha}$	0	β

(No source constraints)

Massive and massless spectra



Massive particle	
Pole residue:	$\frac{3}{\alpha} > 0$
Polarisations:	3
Square mass:	$-\frac{3\beta}{\alpha} > 0$
Spin:	1
Parity:	Even

(No massless particles)

Unitarity conditions

$\alpha > 0$ && $\beta < 0$