Particle spectrograph

Wave operator and propagator

Source constraints/gauge generators	
SO(3) irreps	Multiplicities
$\mathcal{J}^{\#1\,\alpha}_{1^-} == 0$	3
Total constraints:	3

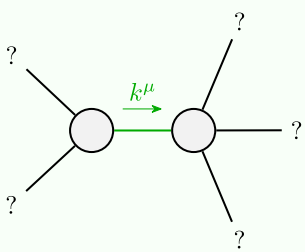
Quadratic (free) Lagrangian density

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

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

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

Massive and massless spectra



Quadratic pole	
Pole residue:	$\frac{1}{\alpha} > 0$
Polarisations:	1

(No massive particles)

Unitarity conditions

$\alpha > 0$