

Particle spectrograph

Wave operator and propagator

Spin-parity form	Covariant form	Multiplicities
$\mathcal{J}_{1^-}^{\#1\alpha} == 0$	$\partial_\beta \mathcal{J}^{\alpha\beta} == 0$	3
Total expected gauge generators: 3		

$\mathcal{J}_{1^+}^{\#1} + \alpha\beta$
 $\mathcal{J}_{1^-}^{\#1} + \alpha$

$\frac{3}{\gamma k^2}$	0
0	0

$\mathcal{J}_{1^+}^{\#1} \quad \mathcal{J}_{1^-}^{\#1} \quad \alpha$

$\mathcal{B}_{1^+}^{\#1} + \alpha\beta$
 $\mathcal{B}_{1^-}^{\#1} + \alpha$

$\frac{\gamma k^2}{3}$	0
0	0

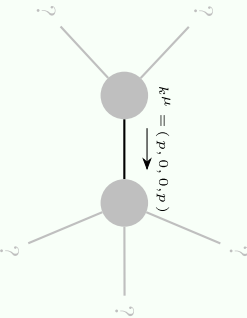
$\mathcal{B}_{1^+}^{\#1} \quad \mathcal{B}_{1^-}^{\#1} \quad \alpha$

$$S == \iiint (\mathcal{B}^{\alpha\beta} \mathcal{J}_{\alpha\beta} + \frac{1}{3} \gamma (-2 \partial_\beta \mathcal{B}_{\alpha\chi} + \partial_\chi \mathcal{B}_{\alpha\beta}) \partial^\chi \mathcal{B}^{\alpha\beta}) [t, x, y, z] dz dy dx dt$$

Massive and massless spectra

Massless particle

Pole residue:	$\frac{1}{\gamma} > 0$
Polarisations:	1



(No massive particles)

Unitarity conditions

$$\gamma > 0$$