

Particle spectrograph

Wave operator and propagator

Spin-parity form	Covariant form	Multiplicities
$\omega_{0+}^{\#2} == 0$	<code>xAct`xTensor`Private`Reconstruct[Symmetry[4, -$\partial^{\bullet 4} \partial^{\bullet 3} \omega^{\bullet 1 \bullet 2}$, {$\bullet 1 \rightarrow a, \bullet 2 \rightarrow b, \bullet 3 \rightarrow -a, \bullet 4 \rightarrow -b$}, StrongGenSet[{3, 4}, GenSet[(3,4)]]], {1, {a, -a, b, -b}}][[1, 3, 5, 2]]] == 0</code>	1
$\omega_{1-}^{\#2 \alpha} == 0$	$\partial_\chi \partial_\beta \partial^\alpha \omega^{\beta \chi} == \partial_\chi \partial^\chi \partial_\beta \omega^{\alpha \beta}$	3
Total expected gauge generators:		4

$\omega_{0+}^{\#1} \dagger^{\alpha \beta}$

$\omega_{0+}^{\#1}$	$\omega_{0+}^{\#2}$
$-\frac{4}{k^2 \kappa}$	0
0	0

$\theta_{0+}^{\#1} \dagger^{\alpha \beta}$

$\theta_{0+}^{\#1}$	$\theta_{0+}^{\#2}$
$-\frac{k^2 \kappa}{4}$	0
0	0

$\omega_{1+}^{\#1} \dagger^{\alpha \beta}$

$\omega_{1+}^{\#1}$	$\omega_{1-}^{\#1} \alpha$	$\omega_{1-}^{\#2} \alpha$
$-\frac{4}{k^2 \kappa}$	0	0
0	$-\frac{4}{k^2 \kappa}$	0
0	0	0

$\theta_{1+}^{\#1} \dagger^{\alpha \beta}$

$\theta_{1+}^{\#1}$	$\theta_{1-}^{\#1} \alpha$	$\theta_{1-}^{\#2} \alpha$
$-\frac{k^2 \kappa}{4}$	0	0
0	$-\frac{k^2 \kappa}{4}$	0
0	0	0

$$S == \iiint (\theta^{\alpha \beta} \omega_{\alpha \beta} + \frac{1}{4} \kappa (\partial_\nu \theta_{\mu \rho} - \partial_\rho \theta_{\mu \nu}) \partial^\rho \theta^{\mu \nu}) [t, x, y, z] dz dy dx dt$$

Massive and massless spectra

Pole residue:	$-\frac{1}{\kappa} > 0$
Polarisations:	6

Massless particle

Pole residue:	$\frac{1}{\kappa} > 0$
Polarisations:	2

Massless particle

(No massive particles)

Unitarity conditions

(Demonstrably impossible)