Particle spectrograph

Wave operator and propagator

$$S = \iiiint \Big(f^{\alpha\beta}\ \tau_{\alpha\beta} + \frac{1}{2} t_1 \big(2\,\partial_\beta f^{\mu}{}_{\mu}\,\partial^\beta f^{\alpha}{}_{\alpha} + 2\,\partial_\beta f^{\alpha\beta}\,\partial_\mu f^{\alpha}{}_{\alpha}\,\partial_\mu f_{\beta}{}^{\mu} - 4\,\partial^\beta f^{\alpha}{}_{\alpha}\,\partial_\mu f_{\beta}{}^{\mu} + 2\,\partial_\alpha f_{\beta\mu}\,\partial^\mu f^{\alpha\beta} + \partial_\alpha f_{\mu\beta}\,\partial^\mu f^{\alpha\beta} - \partial_\beta f_{\alpha\mu}\,\partial^\mu f^{\alpha\beta} - \partial_\mu f_{\alpha\beta}\,\partial^\mu f^{\alpha\beta} - \partial_\mu f_{\beta\alpha}\,\partial^\mu f^{\alpha\beta}\big)\Big)[t, x, y, z]\,dl\ z\ dl\ y\ dl\ x\ dl\ t$$

Spin-parity form	Covariant form	Multiplicities
$0^+_{\#2}\ \tau == 0$	$\partial_\rho \partial^\rho \tau^{\alpha\beta} == 0$	1
$1^-_{\#2}\ \tau^{\alpha} == 0$	$\partial_\chi \partial_\beta \partial^\alpha \tau^{\beta\chi} == \partial_\chi \partial^\chi \partial_\beta \tau^{\alpha\beta}$	3
$1^-_{\#1}\ \tau^{\alpha} == 0$	$\partial_\chi \partial_\beta \partial^\beta \tau^{\alpha\chi} == \partial_\chi \partial^\chi \partial_\beta \tau^{\beta\alpha}$	3
$1^+_{\#1}\ \tau^{\alpha\beta} == 0$	$\partial_\chi \partial^\alpha \tau^{\beta\chi} + \partial_\chi \partial^\beta \tau^{\chi\alpha} + \partial_\chi \partial^\chi \tau^{\alpha\beta} == \partial_\chi \partial^\alpha \tau^{\chi\beta} + \partial_\chi \partial^\beta \tau^{\alpha\chi} + \partial_\chi \partial^\chi \tau^{\beta\alpha}$	3
Total expected gauge generators:		10

$2^+_{\#1} f^{\alpha\beta}$ | $2^+_{\#1} \tau^{\alpha\beta}$

$2^+_{\#1} f\dagger^{\alpha\beta}$	$-k^2 t_1$	$2^+_{\#1} \tau\dagger^{\alpha\beta}$	$-\frac{1}{k^2 t_1}$

$0^+_{\#1} \tau$ | $0^+_{\#2} \tau$

$0^+_{\#1} \tau\dagger$	$\frac{1}{2 k^2 t_1}$	0
$0^+_{\#2} \tau\dagger$	0	0

$1^+_{\#1} f^{\alpha\beta}$ | $1^-_{\#1} f^{\alpha}$ | $1^-_{\#2} f^{\alpha}$

$1^+_{\#1} f\dagger^{\alpha\beta}$	0	0	0
$1^-_{\#1} f\dagger^{\alpha}$	0	0	0
$1^-_{\#2} f\dagger^{\alpha}$	0	0	0

$1^+_{\#1} \tau^{\alpha\beta}$ | $1^-_{\#1} \tau^{\alpha}$ | $1^-_{\#2} \tau^{\alpha}$

$1^+_{\#1} \tau\dagger^{\alpha\beta}$	0	0	0
$1^-_{\#1} \tau\dagger^{\alpha}$	0	0	0
$1^-_{\#2} \tau\dagger^{\alpha}$	0	0	0

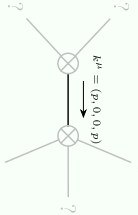
$0^+_{\#1} f$ | $0^+_{\#2} f$

$0^+_{\#1} f\dagger$	$2 k^2 t_1$	0
$0^+_{\#2} f\dagger$	0	0

Massive and massless spectra

Polarisations:	2
Pole residue:	$-\frac{1}{t_1} > 0$

Massless particle



(No particles)

Unitarity conditions