Particle spectrograph

Wave operator and propagator
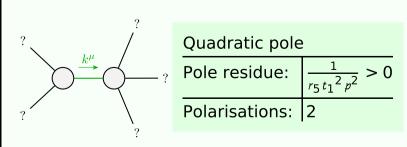
Source constraints

	Fundamental fields	Multiplicities
SO(3) irreps		
$\sigma_0^{\#1} == 0$	$\epsilon\,\eta_{\alpha\beta\chi\delta}\,\partial^\gamma\sigma^{\alpha\beta\chi} == 0$	1
$\tau_0^{\#2} == 0$	$\partial_\beta\partial_\alpha\tau^{\alpha\beta} == 0$	1
$\tau_0^{\#1} - 2\,i\,k\,\sigma_0^{\#1} == 0$	$\partial_\beta\partial_\alpha\tau^{\alpha\beta} == \partial_\beta\partial_\delta\tau^\alpha{}_\alpha + 2\,\partial_\chi\partial_\beta\sigma^{\alpha\beta}$	1
$\tau_1^{\#2\,\alpha} + 2\,i\,k\,\sigma_1^{\#2\,\alpha} == 0$	$\partial_\chi\partial_\beta\sigma^{\alpha\beta\chi} == \partial_\chi\partial_\beta\tau^{\beta\alpha}$	3
$\tau_1^{\#1\,\alpha} == 0$	$\partial_\chi\partial_\beta\sigma^{\beta\alpha} == \partial_\chi\partial_\beta\tau^{\beta\alpha}$	3
$\tau_1^{\#1\,\alpha\beta} + i\,k\,\tau_1^{\#2\,\alpha\beta} == 0$	$\partial_\chi\partial^\alpha\tau^{\beta\chi} + \partial_\chi\partial^\beta\tau^{\alpha\chi} + \partial_\chi\partial^\chi\tau^{\alpha\beta} + 2\,\partial_\delta\partial_\chi\sigma^{\alpha\beta\delta} == 0$	3
$\tau_2^{\#1\,\alpha\beta} - 2\,i\,k\,\sigma_2^{\#1\,\alpha\beta} == 0$	$2\,\partial_\delta\partial_\chi\tau^{\chi\beta} + 2\,\partial_\delta\partial_\chi\sigma^{\alpha\beta\delta} == 0$	5
	$-i\,(4\,\partial_\delta\partial_\chi\partial^\beta\partial^\alpha\tau^{\chi\delta} + 2\,\partial_\delta\partial^\beta\partial^\alpha\tau^\chi{}_\chi -$ ...	
	Total constraints/gauge generators:	17

$S == \int\int\int\int (f^{\alpha\beta}\,\tau_{\alpha\beta} + \omega^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi} +$

Quadratic (free) action

Massive and massless spectra

Quadratic pole	
Pole residue:	$\dfrac{1}{r_5\,t_1{}^2\,p^2} > 0$
Polarisations:	2

(No massive particles)

Unitarity conditions

$r_5 > 0 \;\&\&\; t_1 < 0 \,\|\, t_1 > 0$