PSALTer results panel

Wave operator and propagator

Spin-parity form	Covariant form	Multiplicities
$0^+\mathcal{T}$ ==0	$\partial_\alpha \mathcal{T}^\alpha$ == 0	1
Total expected gauge generators:		1

$0^+\mathcal{T}$ $0^+\mathcal{T}$

0	0
0	$\frac{1}{\beta k^2}$

0^+j 0^+j

$0^+\mathcal{B}$ $0^+\mathcal{B}$

0	0
0	βk^2

$0^+\phi$ $0^+\phi$

$1^-\mathcal{T}^\alpha$ $1^-\mathcal{T}_\alpha$

$\frac{1}{2\alpha k^2}$

$1^-\mathcal{B}^\alpha$ $1^-\mathcal{B}_\alpha$

$2\alpha k^2$

$$\mathcal{S} == \int\int\int\int (\phi\, j + \mathcal{B}^\alpha\ \mathcal{T}_\alpha + \beta\, \partial_\alpha\phi\ \partial^\alpha\phi - 2\,\alpha\,\partial_\alpha\mathcal{B}_\beta\partial^\beta\mathcal{B}^\alpha + 2\,\alpha\,\partial_\beta\mathcal{B}_\alpha\partial^\beta\mathcal{B}^\alpha)[t, x, y, z]\, dt\, dz\, dy\, dx$$

Massive and massless spectra

(No particles)

Massless particle

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

Massless particle

Poleresidue:	$\frac{1}{\beta} > 0$
Polarisations:	1

Unitarity conditions