

# Field kinematics

Momentum	Norm	Frame
$k^\mu$	$k^2 == k_\mu k^\mu$	$n^\mu == \frac{k^\mu}{k}$

## Fundamental fields

Fundamental field	Symmetries	Decomposition in SO(3) irreps	Source
$h_{\alpha\beta}$	StrongGenSet[{1, 2}, GenSet[(1,2)]]	$\frac{1}{3} \eta_{\alpha\beta} h_{0+}^{\#1} + h_{2+}^{\#1}{}_{\alpha\beta} + h_{1-}^{\#1}{}_{\beta} n_{\alpha} + h_{1-}^{\#1}{}_{\alpha} n_{\beta} - \frac{1}{3} h_{0+}^{\#1} n_{\alpha} n_{\beta} + h_{0+}^{\#2} n_{\alpha} n_{\beta}$	$\mathcal{T}_{\alpha\beta}$

## SO(3) irreps

SO(3) irrep	Symmetries	Expansion in fundamental field	Source
$h_{0+}^{\#1}$	StrongGenSet[{}], GenSet[]	$h^{\alpha}{}_{\alpha} - h_{\alpha\beta} n^{\alpha} n^{\beta}$	$\mathcal{T}_{0+}^{\#1}$
$h_{0+}^{\#2}$	StrongGenSet[{}], GenSet[]	$h_{\alpha\beta} n^{\alpha} n^{\beta}$	$\mathcal{T}_{0+}^{\#2}$
$h_{2+}^{\#1}{}_{\alpha\beta}$	StrongGenSet[{1, 2}, GenSet[(1,2)]]	$h_{\alpha\beta} - \frac{1}{3} \eta_{\alpha\beta} h^{\chi}{}_{\chi} + \frac{1}{3} h^{\chi}{}_{\chi} n_{\alpha} n_{\beta} - h_{\beta\chi} n_{\alpha} n^{\chi} -$ $h_{\alpha\chi} n_{\beta} n^{\chi} + \frac{1}{3} \eta_{\alpha\beta} h_{\chi\delta} n^{\chi} n^{\delta} + \frac{2}{3} h_{\chi\delta} n_{\alpha} n_{\beta} n^{\chi} n^{\delta}$	$\mathcal{T}_{2+}^{\#1}{}_{\alpha\beta}$
$h_{1-}^{\#1}{}_{\alpha}$	StrongGenSet[{}], GenSet[]	$h_{\alpha\beta} n^{\beta} - h_{\beta\chi} n_{\alpha} n^{\beta} n^{\chi}$	$\mathcal{T}_{1-}^{\#1}{}_{\alpha}$