Field kinematics

Basic conventions

Minkowski metric tensor	Totally antisymmetric tensor	Momentum	Norm	Frame
$\eta_{\mu\nu}$	$\epsilon\,\eta_{\mu\nu\rho\sigma}$	k^{μ}	$k^2 == k_{\mu}\ k^{\mu}$	$n^{\mu} == \frac{k^{\mu}}{k}$

Fundamental fields

Fundamental field	Symmetries	Decomposition in SO(3) irreps	Source
$\mathcal{B}_{\alpha\beta}$	Symmetry[2, $\mathcal{B}^{\bullet 1\bullet 2}$, {$\bullet 1 \to$ -a, $\bullet 2 \to$ -b}, StrongGenSet[{1, 2}, GenSet[-(1,2)]]]	$\mathcal{B}^{\#1}_{1^+\,\alpha\beta}$ - $\mathcal{B}^{\#1}_{1^-\,\beta}\ n_{\alpha}$ + $\mathcal{B}^{\#1}_{1^-\,\alpha}\ n_{\beta}$	$\mathcal{J}_{\alpha\beta}$

SO(3) irreps

SO(3) irrep	Symmetries	Expansion in terms of the fundamental field	Source
$\mathcal{B}^{\#1}_{1^+\,\alpha\beta}$	Symmetry[2, $\mathcal{B}^{\#1\bullet 1\bullet 2}_{1^+}$, {$\bullet 1 \to$ -a, $\bullet 2 \to$ -b}, StrongGenSet[{1, 2}, GenSet[-(1,2)]]]	$\mathcal{B}_{\alpha\beta} + \mathcal{B}_{\beta\chi}\ n_{\alpha}\ n^{\chi}$ - $\mathcal{B}_{\alpha\chi}\ n_{\beta}\ n^{\chi}$	$\mathcal{J}^{\#1}_{1^+\,\alpha\beta}$
$\mathcal{B}^{\#1}_{1^-\,\alpha}$	Symmetry[1, $\mathcal{B}^{\#1\bullet 1}_{1^-}$, {$\bullet 1 \to$ -a}, StrongGenSet[{}, GenSet[]]]	$\mathcal{B}_{\alpha\beta}\ n^{\beta}$	$\mathcal{J}^{\#1}_{1^-\,\alpha}$