

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
$f_{\alpha\beta}$	Symmetry[2, $f^{\bullet 1 \bullet 2}$, {●1 → -a, ●2 → -b}, StrongGenSet[{}], GenSet[{}]]	$\frac{1}{3} \eta_{\alpha\beta} f_{0^+}^{\#1} + f_{1^+ \alpha\beta}^{\#1} + f_{2^+ \alpha\beta}^{\#1} + f_{1^- \beta}^{\#1} n_\alpha + f_{1^- \alpha}^{\#2} n_\beta - \frac{1}{3} f_{0^+}^{\#1} n_\alpha n_\beta + f_{0^+}^{\#2} n_\alpha n_\beta$	$\tau_{\alpha\beta}$

SO(3) irreps

SO(3) irrep	Symmetries	Expansion in terms of the fundamental field	Source
$f_{0^+}^{\#1}$	Symmetry[0, $f_{0^+}^{\#1}$, {}, StrongGenSet[{}], GenSet[{}]]	$f_\alpha^\alpha - f^{\alpha\beta} n_\alpha n_\beta$	$\tau_{0^+}^{\#1}$
$f_{0^+}^{\#2}$	Symmetry[0, $f_{0^+}^{\#2}$, {}, StrongGenSet[{}], GenSet[{}]]	$f^{\alpha\beta} n_\alpha n_\beta$	$\tau_{0^+}^{\#2}$
$f_{1^+ \alpha\beta}^{\#1}$	Symmetry[2, $f_{1^+}^{\#1 \bullet 1 \bullet 2}$, {●1 → -a, ●2 → -b}, StrongGenSet[{1, 2}, GenSet[-(1,2)]]]	$\frac{f_{\alpha\beta}}{2} - \frac{f_{\beta\alpha}}{2} + \frac{1}{2} f_\beta^\chi n_\alpha n_\chi - \frac{1}{2} f_\beta^\chi n_\alpha n_\chi - \frac{1}{2} f_\alpha^\chi n_\beta n_\chi + \frac{1}{2} f_\alpha^\chi n_\beta n_\chi$	$\tau_{1^+ \alpha\beta}^{\#1}$
$f_{1^- \alpha}^{\#1}$	Symmetry[1, $f_{1^-}^{\#1 \bullet 1}$, {●1 → -a}, StrongGenSet[{}], GenSet[{}]]	$f_\alpha^\beta n_\beta - f^{\beta\chi} n_\alpha n_\beta n_\chi$	$\tau_{1^- \alpha}^{\#1}$
$f_{1^- \alpha}^{\#2}$	Symmetry[1, $f_{1^-}^{\#2 \bullet 1}$, {●1 → -a}, StrongGenSet[{}], GenSet[{}]]	$f_\alpha^\beta n_\beta - f^{\beta\chi} n_\alpha n_\beta n_\chi$	$\tau_{1^- \alpha}^{\#2}$
$f_{2^+ \alpha\beta}^{\#1}$	Symmetry[2, $f_{2^+}^{\#1 \bullet 1 \bullet 2}$, {●1 → -a, ●2 → -b}, StrongGenSet[{1, 2}, GenSet[(1,2)]]]	$\frac{f_{\alpha\beta}}{2} + \frac{f_{\beta\alpha}}{2} - \frac{1}{3} \eta_{\alpha\beta} f_\chi^\chi + \frac{1}{3} f_\chi^\chi n_\alpha n_\beta - \frac{1}{2} f_\beta^\chi n_\alpha n_\chi - \frac{1}{2} f_\beta^\chi n_\alpha n_\chi - \frac{1}{2} f_\alpha^\chi n_\beta n_\chi - \frac{1}{2} f_\alpha^\chi n_\beta n_\chi + \frac{1}{3} \eta_{\alpha\beta} f^{\chi\delta} n_\chi n_\delta + \frac{2}{3} f^{\chi\delta} n_\alpha n_\beta n_\chi n_\delta$	$\tau_{2^+ \alpha\beta}^{\#1}$