

Field kinematics

Basic conventions				
Minkowski metric tensor	Totally antisymmetric tensor	Four-momentum	Four-momentum norm	Massive rest-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)]]]	$\frac{f_{\alpha\beta}}{2} + \frac{f_{\beta\alpha}}{2} - \frac{1}{3}\ \eta_{\alpha\beta}\ f_\chi^\chi + \frac{1}{3}\ f_\chi^\chi\ n_\alpha\ n_\beta - \frac{1}{2}\ f_\beta^\chi\ n_\alpha\ n_\chi - \frac{1}{2}\ f_\beta^\chi\ n_\alpha\ n_\chi - \frac{1}{2}\ f_\alpha^\chi\ n_\beta\ n_\chi - \frac{1}{2}\ f_\alpha^\chi\ n_\beta\ n_\chi + \frac{1}{3}\ \eta_{\alpha\beta}\ f^{\chi\delta}\ n_\chi\ n_\delta + \frac{2}{3}\ f^{\chi\delta}\ n_\alpha\ n_\beta\ n_\chi\ n_\delta$	$\tau_{2^+ \alpha\beta}^{\#1}$