Norm Frame **Fundamental fields**

SO(3) irreps

StrongGenSet[{},GenSet[]]

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StrongGenSet[{},GenSet[]]

StrongGenSet[{},GenSet[]]

SO(3) Symmetries

 $\overset{\#1}{1}f_{\alpha}$

Fields Symmetries

Field kinematics

SO(3) $f_{\alpha\beta} \quad \text{StrongGenSet[{},GenSet[]]} \quad \frac{1}{3} \, \eta_{\alpha\beta} \, \stackrel{\#1}{0^+} f + \stackrel{\#1}{1^+} f_{\alpha\beta} + \stackrel{\#1}{2^+} f_{\alpha\beta} + \stackrel{\#1}{1^-} f_{\beta} \, n_{\alpha} + \stackrel{\#2}{1^-} f_{\alpha} \, n_{\beta} - \frac{1}{3} \, \stackrel{\#1}{0^+} f \, n_{\alpha} \, n_{\beta} + 0^{++} f \, n_{\alpha} \, n_{\beta}$

Expansion

 $f^{\alpha\beta}$ n_{α} n_{β}

 $f^{\alpha}_{\alpha} - f^{\alpha\beta} n_{\alpha} n_{\beta}$

 $\begin{array}{c} \overset{*1}{1+} f_{\alpha\beta} \\ \text{StrongGenSet}[\{1,2\}, \text{GenSet}[-(1,2)]] \end{array} \bigg[\begin{array}{c} \frac{f_{\alpha\beta}}{2} - \frac{f_{\beta\alpha}}{2} + \frac{1}{2} f_{\beta}^{\ X} & n_{\alpha} & n_{\chi} - \frac{1}{2} f_{\alpha}^{\ X} & n_{\alpha} & n_{\chi} - \frac{1}{2} f_{\alpha}^{\ X} & n_{\beta} & n_{\chi} + \frac{1}{2} f_{\alpha}^{\ X} & n_{\beta} & n_{\chi} \end{array} \bigg]$

 $f^{\beta}_{\alpha} n_{\beta} - f^{\beta \chi} n_{\alpha} n_{\beta} n_{\chi}$

 $f_{\alpha}^{\beta} n_{\beta} - f^{\beta \chi} n_{\alpha} n_{\beta} n_{\chi}$

 $\frac{\#1}{2+f_{\alpha\beta}} \left[\text{StrongGenSet}[\{1,2\},\text{GenSet}[(1,2)]] \right] \left[\frac{f_{\alpha\beta}}{2} + \frac{f_{\beta\alpha}}{2} - \frac{1}{3} \eta_{\alpha\beta} f_{\chi}^{\chi} + \frac{1}{3} f_{\chi}^{\chi} \eta_{\alpha} \eta_{\beta} - \frac{1}{2} f_{\beta}^{\chi} \eta_{\alpha} \eta_{\chi} - \frac{1}{2} f_{\alpha}^{\chi} \eta_{\beta} \eta_{\chi} - \frac{1}{2} f_{\alpha}^{\chi} \eta_{\beta} \eta_{\chi} - \frac{1}{3} f_{\alpha\beta}^{\chi} f_{\alpha}^{\chi} \eta_{\beta} + \frac{1}{3} \eta_{\alpha\beta} f_{\alpha}^{\chi} \eta_{\beta} \eta_{\chi} \right] + \frac{1}{3} \eta_{\alpha\beta} f_{\alpha\beta}^{\chi} + \frac{1}{3} \eta_{\alpha\beta} f_{\alpha\beta}^{\chi} + \frac{1}{3} \eta_{\alpha\beta} f_{\alpha\beta}^{\chi} \eta_{\alpha} \eta_{\beta} - \frac{1}{2} f_{\alpha\beta}^{\chi} \eta_{\alpha} \eta_{\chi} - \frac{1}{2} f_{\alpha\beta}^{\chi} \eta_{\beta} \eta_{\chi} + \frac{1}{3} \eta_{\alpha\beta} f_{\alpha\beta}^{\chi} \eta_{\beta} \eta_{\chi} \right]$

Sources

Sources