| Basic conve  | entions   |                    |  |  |  |  |                            |  |
|--|---|--------------------|--|--|--|--|----------------------------|--|
| Minkowski n  | metric tensor Totally antisymmetric tensor  | Four-momentum      |  |  |  |  |                            |  |
| $\eta_{\mu  u}$  | $\epsilon \eta_{\mu  u  ho \sigma}$   | $k^{\mu}$          | $k^2 == k_\mu k^\mu$   | $n^{\mu} == \frac{k^{\mu}}{k}$             |  |  |                            |  |
| Fundamental field   Symmetries   Decomposition in SO(3) irreps   |   |                    |  |  |  |  | Source                     |  |
| $\mathcal{B}_{\alpha\beta} \qquad \qquad \text{Symmetry[2, } \mathcal{B}^{\bullet 1 \bullet 2}, \{ \bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b \}, \\ \text{StrongGenSet[\{1, 2\}, GenSet[-(1, 2)]]]} \qquad \mathcal{B}_{1^{+} \alpha\beta}^{\# 1} - \mathcal{B}_{1^{-} \beta}^{\# 1} \ n_{\alpha} + \mathcal{B}_{1^{-} \alpha}^{\# 1} \ n_{\beta} $ |   |                    |  |  |  |  | $oxed{{\cal J}_{lphaeta}}$ |  |
| SO(3) irrep   Symmetries   Expansion in terms of the fundamental field   |   |                    |  |  |  |  | Source                     |  |
| ${\cal B}_{1}^{\#1}{}_{lphaeta}$   | Symmetry[2, $\mathcal{B}_{1}^{\#1} \bullet 1 \bullet 2$ , $\{ \bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b \}$<br>StrongGenSet[ $\{ 1, 2 \}$ , GenSet[ $-(1,2)$ ]]] | ,                  | $\mathcal{B}_{\alpha\beta} + \mathcal{B}_{\beta\chi} n_{\alpha} n^{\chi} - \mathcal{B}_{\alpha\chi}$ | <sub>χ</sub> n <sub>β</sub> n <sup>χ</sup> |  |  |                            | $\mathcal{J}_{1}^{\sharp 1}{}_{lphaeta}$ |
| $\mathcal{B}_{1^{-}\alpha}^{\sharp 1}$   | Symmetry[1, $\mathcal{B}_{1}^{\#1} \bullet 1$ , $\{ \bullet 1 \rightarrow -a \}$ , StrongGe   | nSet[{}, GenSet[]] | ] $\mathcal{B}_{\alpha\beta} n^{\beta}$  |  |  |  |                            | $\mathcal{J}_{1-lpha}^{\sharp 1}$        |