Momentum Norm Frame $k^{\mu} \qquad k^{2} == k_{\mu} k^{\mu} n^{\mu} == \frac{k^{\mu}}{k}$			
Fundamental fields			
Fundamental field Symmetries Decomposition in SO(3) irreps Source			
$\Gamma_{lphaeta\chi}$		$\begin{array}{c} -\frac{1}{2} \ \eta_{\alpha\chi} \ \Gamma_{1}^{\#1}{}_{\beta} + \frac{1}{2} \ \eta_{\alpha\beta} \ \Gamma_{1}^{\#1}{}_{\chi} + \frac{4}{3} \ \Gamma_{2}^{\#1}{}_{\beta\chi\alpha} + \frac{1}{2} \ \Gamma_{2}^{\#2}{}_{\alpha\beta\chi} + \frac{1}{2} \ \Gamma_{2}^{\#2}{}_{\alpha\chi\beta} + \Gamma_{3}^{\#1}{}_{\alpha\beta\chi} + \\ \frac{1}{3} \ \eta_{\beta\chi} \ \Gamma_{1}^{\#6}{}_{\alpha} - \frac{1}{6} \ \eta_{\alpha\chi} \ \Gamma_{1}^{\#6}{}_{\beta} - \frac{1}{6} \ \eta_{\alpha\beta} \ \Gamma_{1}^{\#6}{}_{\chi} + \frac{1}{15} \ \eta_{\beta\chi} \ \Gamma_{1}^{\#4}{}_{\alpha} + \frac{1}{15} \ \eta_{\alpha\chi} \ \Gamma_{1}^{\#4}{}_{\beta} + \\ \frac{1}{15} \ \eta_{\alpha\beta} \ \Gamma_{1}^{\#4}{}_{\chi} + \Gamma_{1}^{\#2}{}_{\beta\chi} \ n_{\alpha} + \frac{1}{9} \ \eta_{\beta\chi} \ \Gamma_{0}^{\#4} \ n_{\alpha} + \frac{1}{3} \ \Gamma_{2}^{\#2}{}_{\beta\chi} \ n_{\alpha} + \frac{2}{3} \ \Gamma_{2}^{\#3}{}_{\beta\chi} \ n_{\alpha} + \\ \frac{2}{9} \ \eta_{\beta\chi} \ \Gamma_{0}^{\#4} \ n_{\alpha} + \frac{1}{3} \ \eta_{\alpha\chi} \ \Gamma_{0}^{\#4} \ n_{\beta} - \Gamma_{1}^{\#4}{}_{\alpha\chi} \ n_{\beta} + \Gamma_{2}^{\#4}{}_{\alpha\chi} \ n_{\beta} + \frac{1}{9} \ \eta_{\alpha\chi} \ \Gamma_{0}^{\#3} \ n_{\beta} - \\ \frac{1}{2} \ \Gamma_{1}^{\#3}{}_{\alpha\chi} \ n_{\beta} + \frac{1}{3} \ \Gamma_{2}^{\#2}{}_{\alpha\chi} \ n_{\beta} - \frac{1}{3} \ \Gamma_{2}^{\#3}{}_{\alpha\chi} \ n_{\beta} - \frac{1}{9} \ \eta_{\alpha\chi} \ \Gamma_{0}^{\#4} \ n_{\beta} - \frac{1}{2} \ \Gamma_{1}^{\#1}{}_{\chi} \ n_{\alpha} \ n_{\beta} - \\ \frac{1}{3} \ \Gamma_{1}^{\#2}{}_{\chi} \ n_{\alpha} \ n_{\beta} + \frac{1}{6} \ \Gamma_{1}^{\#6} \ n_{\alpha} \ n_{\beta} - \frac{1}{15} \ \Gamma_{1}^{\#4} \ n_{\alpha} \ n_{\beta} - \frac{1}{3} \ \Gamma_{1}^{\#5} \ n_{\alpha} \ n_{\beta} + \\ \frac{1}{3} \ \Gamma_{1}^{\#3}{}_{\chi} \ n_{\alpha} \ n_{\beta} - \frac{1}{3} \ \eta_{\alpha\beta} \ \Gamma_{0}^{\#4} \ n_{\chi} + \Gamma_{1}^{\#4} \ n_{\alpha} \ n_{\gamma} - \Gamma_{2}^{\#4} \ n_{\beta} \ n_{\chi} + \frac{1}{9} \ \eta_{\alpha\beta} \ \Gamma_{0}^{\#3} \ n_{\chi} - \\ \frac{1}{2} \ \Gamma_{1}^{\#3}{}_{\alpha\beta} \ n_{\chi} + \frac{1}{3} \ \Gamma_{2}^{\#2} \ n_{\beta} \ n_{\chi} - \frac{1}{3} \ \Gamma_{2}^{\#3} \ n_{\beta} \ n_{\chi} - \frac{1}{9} \ \eta_{\alpha\beta} \ \Gamma_{0}^{\#4} \ n_{\chi} + \frac{1}{2} \ \Gamma_{1}^{\#1}{}_{\beta} \ n_{\alpha} \ n_{\chi} + \\ \Gamma_{1}^{\#2}{}_{\beta} \ n_{\alpha} \ n_{\chi} + \frac{1}{6} \ \Gamma_{1}^{\#6} \ n_{\alpha} \ n_{\chi} - \frac{1}{15} \ \Gamma_{1}^{\#4} \ n_{\alpha} \ n_{\chi} - \frac{1}{3} \ \Gamma_{1}^{\#5} \ n_{\alpha} \ n_{\chi} + \\ \Gamma_{1}^{\#2}{}_{\beta} \ n_{\alpha} \ n_{\chi} + \frac{1}{3} \ \Gamma_{1}^{\#6} \ n_{\alpha} \ n_{\chi} - \frac{1}{15} \ \Gamma_{1}^{\#4} \ n_{\alpha} \ n_{\chi} - \frac{1}{3} \ \Gamma_{1}^{\#5} \ n_{\alpha} \ n_{\chi} + \\ \frac{1}{3} \ \Gamma_{1}^{\#3} \ n_{\alpha} \ n_{\chi} - \frac{1}{3} \ \Gamma_{1}^{\#3} \ n_{\alpha} \ n_{\beta} \ n_{\chi} - \frac{1}{3} \ \Gamma_{1}^{\#3} \ n_{\alpha} \ n_{\beta} \ n_{\chi} - \frac{1}{3} \ \Gamma_{1}^{\#3} \ n_{\alpha} \ n_{\beta} \ n_{\chi} - \frac{1}{3} \ \Gamma_{1}^{\#3} \ n_{\alpha} \ n_{\beta} \ n_{\chi} $	
SO(3) irr	eps		
-	Symmetries	Expansion in fundamental field	Source
$\frac{\Gamma_{0}^{\#1}}{\Gamma_{0}^{\#2}}$	StrongGenSet[{}, GenSet[]] StrongGenSet[{}, GenSet[]]	$-\frac{1}{2} \Gamma^{\alpha}_{\alpha}{}^{\beta} n_{\beta} + \frac{1}{2} \Gamma^{\alpha\beta}_{\alpha} n_{\beta}$ $\Gamma^{\alpha\beta\chi}_{\alpha} n_{\alpha} n_{\beta} n_{\chi}$	$\Delta_{0}^{#1}$ $\Delta_{0}^{#2}$
Γ#3 Γ ₀ +	StrongGenSet[{}, GenSet[]]	$\Gamma^{\alpha\beta}_{\beta} n_{\alpha} + \Gamma^{\alpha\beta}_{\alpha} n_{\beta} + \Gamma^{\alpha\beta}_{\alpha} n_{\beta} - 3 \Gamma^{\alpha\beta\chi} n_{\alpha} n_{\beta} n_{\chi}$	Δ#3
Γ#4	StrongGenSet[{}, GenSet[]]	$\Gamma^{\alpha\beta}_{\beta} n_{\alpha} - \frac{1}{2} \Gamma^{\alpha}_{\alpha}^{\beta} n_{\beta} - \frac{1}{2} \Gamma^{\alpha\beta}_{\alpha} n_{\beta}$	Δ#4
$\frac{\Gamma_0^{\#1}}{\Gamma_{1^+\alpha\beta}^{\#1}}$	StrongGenSet[{}, GenSet[]] StrongGenSet[{1, 2}, GenSet[-(1,2)]	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} \Delta_0^{\#1} \\ \overline{\Delta_{1^+ \alpha\beta}^{\#1}} \end{array}$
$\Gamma^{\#2}_{1+\alpha\beta}$	StrongGenSet[{1, 2}, GenSet[-(1,2)]	$\frac{1}{4} \Gamma^{\chi\delta}_{\beta} n_{\alpha} n_{\chi} n_{\delta} + \frac{1}{4} \Gamma^{\chi}_{\alpha}^{\delta} n_{\beta} n_{\chi} n_{\delta} - \frac{1}{4} \Gamma^{\chi\delta}_{\alpha} n_{\beta} n_{\chi} n_{\delta}$	$\Delta_{1}^{\#2}{}_{\alpha\beta}$
		$\frac{1}{2} \Gamma^{X\delta}_{\beta} n_{\alpha} n_{\chi} n_{\delta} - \frac{1}{2} \Gamma^{X\delta}_{\alpha} n_{\beta} n_{\chi} n_{\delta} + \frac{1}{2} \Gamma^{X\delta}_{\alpha} n_{\beta} n_{\chi} n_{\delta}$	
Γ ^{#3} 1 ⁺ αβ	StrongGenSet[{1, 2}, GenSet[-(1,2)]	$ \begin{bmatrix} -\frac{1}{2} \Gamma_{\alpha\beta}^{X} n_{\chi} - \frac{1}{2} \Gamma_{\alpha\beta}^{X} n_{\chi} + \frac{1}{2} \Gamma_{\beta\alpha}^{X} n_{\chi} + \frac{1}{2} \Gamma_{\beta\alpha}^{X} n_{\chi} - \Gamma_{\beta\alpha}^{X} n_{\chi} + \frac{1}{2} \Gamma_{\beta\alpha}^{X} n_{\chi} + \frac{1}{2} \Gamma_{\beta\alpha}^{X} n_{\chi} n_{\chi} - \Gamma_{\beta\alpha}^{X\delta} n_{\alpha} n_{\chi} n_{\delta} + \frac{1}{2} \Gamma_{\beta\alpha}^{X\delta} n_{\alpha} n_{\chi} n_{\delta} + \frac{1}{2} \Gamma_{\alpha\beta}^{X\delta} n_{\alpha} n_{\chi} n_{\delta} - \frac{1}{2} \Gamma_{\alpha\beta}^{X\delta} n_{\beta} n_{\chi} n_{\delta} \end{bmatrix} $	$\Delta_{1}^{#3}{}_{\alpha\beta}$
$\Gamma_{1-\alpha}^{\#1}$	StrongGenSet[{}, GenSet[]]	$-\frac{1}{2} \Gamma^{\beta}{}_{\alpha\beta} + \frac{1}{2} \Gamma^{\beta}{}_{\beta\alpha} - \frac{1}{2} \Gamma^{\beta}{}_{\beta}^{\chi} n_{\alpha} n_{\chi} + \frac{1}{2} \Gamma^{\beta\chi}{}_{\beta} n_{\alpha} n_{\chi} + \frac{1}{2} \Gamma^{\beta}{}_{\alpha}^{\chi} n_{\beta} n_{\chi} - \frac{1}{2} \Gamma^{\beta\chi}{}_{\alpha} n_{\beta} n_{\chi}$	$\Delta_1^{\#1}$
$\frac{\Gamma_{1-\alpha}^{\#2}}{\Gamma_{1-\alpha}^{\#3}}$	StrongGenSet[{}, GenSet[]]	$\frac{1}{2} \Gamma^{\beta}_{\alpha} \chi n_{\beta} n_{\chi} - \frac{1}{2} \Gamma^{\beta \chi}_{\alpha} n_{\beta} n_{\chi}$ $= \beta \chi n_{\chi} n_{\chi} + \beta \chi n_{\chi} n_$	Δ#2 α
$\frac{\Gamma_{1}^{\#3}{}_{\alpha}}{\Gamma_{1}^{\#4}{}_{\alpha}}$	StrongGenSet[{}, GenSet[]] StrongGenSet[{}, GenSet[]]	$\Gamma_{\alpha}^{\beta\chi} n_{\beta} n_{\chi} + \Gamma_{\alpha}^{\beta\chi} n_{\beta} n_{\chi} + \Gamma_{\alpha}^{\beta\chi} n_{\beta} n_{\chi} - 3 \Gamma^{\beta\chi\delta} n_{\alpha} n_{\beta} n_{\chi} n_{\delta}$ $\Gamma_{\alpha\beta}^{\beta} + \Gamma_{\alpha\beta}^{\beta} + \Gamma_{\beta\alpha}^{\beta} - \Gamma_{\chi}^{\beta\chi} n_{\alpha} n_{\beta} - \Gamma_{\beta}^{\beta\chi} n_{\alpha} n_{\chi} - \Gamma_{\beta}^{\beta\chi} n_{\alpha} n_{\chi} - \Gamma_{\alpha}^{\beta\chi} n_{\beta} n_{\chi} - \Gamma_{\alpha}^{\gamma\chi} n_{\beta} n_{\chi} - \Gamma_{\alpha}^{\gamma\chi} n_{\beta} n_{\chi} - \Gamma_{\alpha}^{\gamma\chi} n_{\beta} n_{\chi} - \Gamma_{\alpha}^{\gamma\chi} n_{\gamma} n_{\gamma} n_{\gamma} - \Gamma_{\alpha}^{\gamma\chi} n_{\gamma} n_{\gamma} n_{\gamma} n_{\gamma} - \Gamma_{\alpha}^{\gamma\chi} n_{\gamma} n_{$	$\Delta_{1}^{#3}{}_{\alpha}$ $\Delta_{1}^{#4}{}_{\alpha}$
Γ ₁ ^{#5} α	StrongGenSet[{}, GenSet[]]	$\Gamma_{\alpha}^{\beta\chi} n_{\beta} n_{\chi}^{-\frac{1}{2}} \Gamma_{\alpha}^{\beta\chi} n_{\beta} n_{\chi}^{-\frac{1}{2}} \Gamma_{\alpha}^{\beta\chi} n_{\beta} n_{\chi}$	$\Delta_{1}^{\#5}$ α
$\Gamma_{1}^{\#6}$ α	StrongGenSet[{}, GenSet[]]	$\Gamma_{\alpha\beta}^{\beta} - \frac{1}{2} \Gamma_{\alpha\beta}^{\beta} - \frac{1}{2} \Gamma_{\beta\alpha}^{\beta} - \Gamma_{\chi}^{\beta\chi} n_{\alpha} n_{\beta} + \frac{1}{2} \Gamma_{\beta}^{\beta\chi} n_{\alpha} n_{\chi} + \dots $	$\Delta_{1}^{\#6}$ α
$\Gamma^{\#1}_{2}^{+}_{lphaeta}$	StrongGenSet[{1, 2}, GenSet[(1,2)]	$\frac{1}{2} \Gamma^{\beta \chi}_{\beta} n_{\alpha} n_{\chi} - \Gamma_{\alpha}^{\beta \chi} n_{\beta} n_{\chi} + \frac{1}{2} \Gamma^{\beta}_{\alpha} n_{\beta} n_{\chi} + \frac{1}{2} \Gamma^{\beta \chi}_{\alpha} n_{\beta} n_{\chi}$ $-\frac{1}{4} \Gamma_{\alpha \beta}^{\chi} n_{\chi} + \frac{1}{4} \Gamma_{\alpha}^{\chi}_{\beta} n_{\chi} - \frac{1}{4} \Gamma_{\beta \alpha}^{\chi} n_{\chi} + \frac{1}{4} \Gamma_{\beta}^{\chi}_{\alpha} n_{\chi} + \frac{1}{6} \eta_{\alpha \beta} \Gamma^{\chi}_{\chi}^{\delta} n_{\delta} - \frac{1}{6} \eta_{\alpha \beta} \Gamma^{\chi \delta}_{\chi} n_{\delta} - \frac{1}{6} \Gamma^{\chi}_{\chi}^{\delta} n_{\alpha} n_{\beta} n_{\delta} + \frac{1}{6} \Gamma^{\chi \delta}_{\chi} n_{\delta} n_{\delta} n_{\delta} + \frac{1}{6} \Gamma^{\chi \delta}_{\chi} n_{\delta} n_{\delta}$	$\Delta_{2}^{\#1}{}_{lphaeta}$
	StrongGenSet[{1, 2}, GenSet[(1,2)]		$\Delta_{2}^{\#2}{}_{\alpha\beta}$
		$\frac{1}{2} \Gamma^{X}_{\beta\alpha} n_{\chi}^{-\frac{1}{3}} \eta_{\alpha\beta} \Gamma^{X\delta}_{\delta} n_{\chi}^{+\frac{1}{3}} \Gamma^{X\delta}_{\delta} n_{\alpha} n_{\beta} n_{\chi}^{-\frac{1}{3}} \eta_{\alpha\beta} \Gamma^{X}_{\chi}^{\delta} n_{\delta}^{-}$ $\frac{1}{3} \eta_{\alpha\beta} \Gamma^{X\delta}_{\chi} n_{\delta}^{+\frac{1}{3}} \Gamma^{X}_{\chi}^{\delta} n_{\alpha} n_{\beta} n_{\delta}^{+\frac{1}{3}} \Gamma^{X\delta}_{\chi} n_{\alpha} n_{\beta} n_{\delta}^{-} \Gamma^{X\delta}_{\beta} n_{\alpha} n_{\chi} n_{\delta}^{-}$ $\Gamma^{X}_{\beta}^{\delta} n_{\alpha} n_{\chi} n_{\delta}^{-} \Gamma^{X\delta}_{\beta} n_{\alpha} n_{\chi} n_{\delta}^{-} \Gamma^{X\delta}_{\alpha}^{\delta} n_{\beta} n_{\chi} n_{\delta}^{-} \Gamma^{X}_{\alpha}^{\delta} n_{\beta} n_{\chi} n_{\delta}^{-}$ $\Gamma^{X\delta}_{\alpha} n_{\beta} n_{\chi} n_{\delta}^{+} \eta_{\alpha\beta} \Gamma^{X\delta\epsilon} n_{\chi} n_{\delta} n_{\epsilon}^{+} 2 \Gamma^{X\delta\epsilon} n_{\alpha} n_{\beta} n_{\chi} n_{\delta} n_{\epsilon}$	
Γ#3 2 ⁺ αβ	StrongGenSet[{1, 2}, GenSet[(1,2)]	$-\frac{1}{4} \Gamma_{\alpha\beta}^{\ X} n_{\chi} - \frac{1}{4} \Gamma_{\alpha\beta}^{\ X} n_{\chi} - \frac{1}{4} \Gamma_{\beta\alpha}^{\ X} n_{\chi} - \frac{1}{4} \Gamma_{\beta\alpha}^{\ X} n_{\chi} + \frac{1}{2} \Gamma^{X}_{\alpha\beta} n_{\chi} + \frac{1}{2} \Gamma^{X}_{\beta\alpha} n_{\chi} - \frac{1}{4} \Gamma_{\beta\alpha}^{\ X} n_{\chi} - \frac{1}{4} \Gamma_{\beta\alpha}^{\ X} n_{\chi} + \frac{1}{2} \Gamma_{\alpha\beta}^{\ X} n_{\chi} + \frac{1}{2} \Gamma_{\alpha\beta}^{\ X} n_{\chi} - \frac{1}{4} \Gamma_{\beta\alpha}^{\ X} n_{\chi} + \frac{1}{2} \Gamma_{\alpha\beta}^{\ X} n_{\chi} + \frac{1}{2} \Gamma_{\alpha\beta}^{\$	$\Delta_{2}^{\#3}_{+\alpha\beta}$
$\Gamma_{2}^{#1}{}_{\alpha\beta\chi}$	StrongGenSet[{1, 2}, GenSet[-(1,2)]		$\Delta_2^{#1}_{\alpha\beta\chi}$
Γ# ² ₂ αβχ	StrongGenSet[{1, 2}, GenSet[-(1,2)]		$\Delta_{2}^{#2}{}_{\alpha\beta\chi}$
$\Gamma_3^{#1}$ $\alpha \beta \chi$	StrongGenSet[{1, 2, 3}, GenSet[(1,2,4)]	$\begin{array}{l} \frac{1}{6} \Gamma_{\alpha\beta\chi} + \frac{1}{6} \Gamma_{\alpha\chi\beta} - \frac{1}{15} \eta_{\beta\chi} \Gamma_{\alpha}^{\delta} \delta_{\delta} + \frac{1}{6} \Gamma_{\beta\alpha\chi} + \frac{1}{6} \Gamma_{\beta\chi\alpha} - \frac{1}{15} \eta_{\alpha\chi} \Gamma_{\alpha}^{\delta} \delta_{\delta} + \frac{1}{6} \Gamma_{\chi\alpha\beta} + \frac{1}{15} \eta_{\alpha\chi} \Gamma_{\alpha}^{\delta} \delta_{\delta} + \frac{1}{6} \Gamma_{\chi\alpha\beta} + \frac{1}{15} \eta_{\alpha\chi} \Gamma_{\alpha}^{\delta} \delta_{\delta} - \frac{1}{15} \eta_{\alpha\chi} \Gamma_{\alpha\beta}^{\delta} - \frac{1}{15} \Gamma_{\alpha\lambda} \Gamma_{\alpha\lambda}^{\delta} - \frac{1}{15} \Gamma_{\alpha\lambda} \Gamma_{\alpha\lambda}^{\delta} - \frac{1}{15} \Gamma_{\alpha\lambda} \Gamma_{\alpha\lambda}^{\delta} - \frac{1}{15} \Gamma_{\alpha\lambda}^{\delta} \Gamma_{\alpha\lambda}^{\delta} - \frac{1}{15} \Gamma_{\alpha\lambda}^$	$\Delta_3^{#1}{}_{lphaeta\chi}$

Field kinematics