Field kinematics

Momentum	Norm	Frame	
k^{μ}	$k^2 == k_\mu k^\mu$	n ^μ ==	

Fundamental fields

Fields Symmetries

${\mathcal A}_{lphaeta\chi}$	StrongGenSet[{1, 2}, GenSet[-(1,2)]]	$-\frac{1}{2} \eta_{\beta \chi} \mathcal{A}_{1-\alpha}^{\#1} + \frac{1}{2} \eta_{\alpha \chi} \mathcal{A}_{1-\beta}^{\#1} + \frac{4}{3} \mathcal{A}_{2-\alpha \beta \chi}^{\#1} + \frac{1}{3} \eta_{\beta \chi} \mathcal{A}_{0+}^{\#1} n_{\alpha} + \mathcal{A}_{1+\beta \chi}^{\#1} n_{\alpha} + \mathcal{A}_{2+\beta \chi}^{\#1} n_{\alpha} - \frac{1}{3} \eta_{\alpha \chi} \mathcal{A}_{0+}^{\#1} n_{\beta} - \mathcal{A}_{1+\alpha \chi}^{\#1} n_{\beta} - \mathcal{A}_{2+\alpha \chi}^{\#1} n_{\beta} + \mathcal{A}_{1+\alpha \beta}^{\#2} n_{\chi} - \frac{1}{2} \mathcal{A}_{1-\beta}^{\#1} n_{\alpha} n_{\chi} - \mathcal{A}_{1-\beta}^{\#2} n_{\alpha} n_{\chi} + \frac{1}{2} \mathcal{A}_{1-\alpha}^{\#1} n_{\beta} n_{\chi} + \mathcal{A}_{1-\alpha}^{\#2} n_{\beta} n_{\chi} - \mathcal{A}_{1-\beta}^{\#2} n_{\alpha} n_{\chi} - \mathcal{A}_{1-\beta}^{\#2} n_{\alpha} n_{\chi} + \frac{1}{2} \mathcal{A}_{1-\alpha}^{\#1} n_{\beta} n_{\chi} + \mathcal{A}_{1-\alpha}^{\#2} n_{\beta} n_{\chi} - \mathcal{A}_{1-\alpha}^{\#2} n_{\beta} n_{\chi} - \mathcal{A}_{1-\beta}^{\#2} n_{\alpha} n_{\chi} - \mathcal{A}_{1-\beta}^{\#2} n_{\alpha} n_{\chi} + \frac{1}{2} \mathcal{A}_{1-\alpha}^{\#1} n_{\beta} n_{\chi} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} n_{\gamma} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} n_{\gamma} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} n_{\gamma} - \mathcal{A}_{1-\alpha}^{\#2} n_{\gamma} n_{\gamma} n_{\gamma} - \mathcal$

SO(3)

 $\mathcal{A}_{1}^{\#1} \alpha_{x} n_{\beta} - \mathcal{A}_{2}^{\#1} \alpha_{x} n_{\beta} + \mathcal{A}_{1}^{\#2} \alpha_{x} n_{x} - \frac{1}{2} \mathcal{A}_{1}^{\#1} \alpha_{x} n_{x} - \frac{1}{2} \mathcal{A}_{1}^{\#1} \alpha_{x} n_{x} - \mathcal{A}_{1}^{\#2} \alpha_{x} n_{x} n_{x} + \frac{1}{2} \mathcal{A}_{1}^{\#1} \alpha_{x} n_{x} n_{x} + \mathcal{A}_{1}^{\#2} \alpha_{x} n_{x} n_{x} - \frac{1}{6} \epsilon \eta_{\alpha\beta\gamma\delta} \mathcal{A}_{0}^{\#1} n^{\delta}$

 $\frac{1}{4} \mathcal{A}_{\gamma\delta\alpha} \ n_{\beta} \ n^{\delta} - \frac{3}{8} \ \eta_{\alpha\chi} \ \mathcal{A}_{\delta \ \epsilon}^{\ \epsilon} \ n_{\beta} \ n^{\delta} - \frac{1}{2} \mathcal{A}_{\alpha\beta\delta} \ n_{\chi} \ n^{\delta} - \frac{1}{4} \mathcal{A}_{\alpha\delta\beta} \ n_{\chi} \ n^{\delta} + \frac{1}{4} \mathcal{A}_{\beta\delta\alpha} \ n_{\chi} \ n^{\delta} + \frac{3}{8} \ \eta_{\beta\chi} \ \mathcal{A}_{\alpha\delta\epsilon} \ n^{\delta} \ n^{\epsilon} - \frac{3}{8} \ \eta_{\alpha\chi} \ \mathcal{A}_{\beta\delta\epsilon} \ n^{\delta} \ n^{\epsilon} - \frac{3}{8} \mathcal{A}_{\beta\delta\epsilon} \ n_{\alpha} \ n_{\chi} \ n^{\delta} \ n^{\epsilon} + \frac{3}{8} \mathcal{A}_{\alpha\delta\epsilon} \ n_{\beta} \ n_{\chi} \ n^{\delta} \ n^{\epsilon} + \frac{3}{8} \mathcal{A}_{\alpha\delta\epsilon} \ n^{\delta} \ n^{\delta} \ n^{\epsilon} + \frac{3}{8} \mathcal{A}_{\alpha\delta\epsilon} \ n^{\delta} \ n^{\delta} \ n^{\delta} + \frac{3}{8} \mathcal{A}_{\alpha\delta\epsilon} \ n^{\delta} \ n^$

Sources

Sources

 $\sigma_{1^{+}\alpha\beta}^{\#2}$

 $\sigma_{1-\alpha}^{\#1}$

 $\sigma_{2^{+}\alpha\beta}^{\#1}$

 $\sigma_{2}^{\#1}{}_{\alpha\beta\chi}$

SO(3) irreps				
SO(3)	Symmetries	Expansion		
$\mathcal{A}_0^{\sharp 1}$		${\cal A}_{lpha\;\;eta}^{\;\;eta}\;n^lpha$		
$\mathcal{A}_0^{\#1}$	StrongGenSet[{}, GenSet[]]	$-\epsilon\eta_{lphaeta\chi\delta}~\mathcal{A}^{eta\chi\delta}~n^lpha$		
$\mathcal{A}_{1}^{\sharp 1}{}_{lphaeta}$	StrongGenSet[{1, 2}, GenSet[-(1,2)]]	$-\frac{1}{2}\mathcal{A}_{\alpha\chi\beta}n^{\chi}+\frac{1}{2}\mathcal{A}_{\beta\chi\alpha}n^{\chi}-\frac{1}{2}\mathcal{A}_{\beta\chi\delta}n_{\alpha}n^{\chi}n^{\delta}+\frac{1}{2}\mathcal{A}_{\alpha\chi\delta}n_{\beta}n^{\chi}n^{\delta}$		
$\mathcal{A}_{1}^{\#2}{}_{lphaeta}$	StrongGenSet[{1, 2}, GenSet[-(1,2)]]	$\mathcal{A}_{\alpha\beta\chi}\ n^{\chi} + \mathcal{A}_{\beta\chi\delta}\ n_{\alpha}\ n^{\chi}\ n^{\delta} - \mathcal{A}_{\alpha\chi\delta}\ n_{\beta}\ n^{\chi}\ n^{\delta}$		
${\mathscr R}_{1^{-}\; lpha}^{\# 1}$	StrongGenSet[{}, GenSet[]]	$-\mathcal{A}_{lpha\ eta}^{\ \ eta}+\mathcal{A}_{eta\ \chi}^{\ \ X}\ n_{lpha}\ n^{eta}+\mathcal{A}_{lphaeta\chi}^{\ \ X}\ n_{lpha}^{\ \ }n^{eta}$		
$\mathcal{H}_{1}^{\#2}{}_{\alpha}$	StrongGenSet[{}, GenSet[]]	$\mathcal{A}_{lphaeta\chi}$ n^{eta} n^{χ}		
$\mathcal{A}_{2}^{\#1}{}_{lphaeta}$	StrongGenSet[{1, 2}, GenSet[(1,2)]]	$-\frac{1}{2}\mathcal{A}_{\alpha\chi\beta}n^{\chi}-\frac{1}{2}\mathcal{A}_{\beta\chi\alpha}n^{\chi}-\frac{1}{3}\eta_{\alpha\beta}\mathcal{A}_{\chi\ \delta}^{\ \delta}n^{\chi}+\frac{1}{3}\mathcal{A}_{\chi\ \delta}^{\ \delta}n_{\alpha}n_{\beta}^{\chi}n^{\chi}+\frac{1}{2}\mathcal{A}_{\beta\chi\delta}^{\ }n_{\alpha}^{\ }n^{\chi}^{\chi}n^{\delta}+\frac{1}{2}\mathcal{A}_{\alpha\chi\delta}^{\ }n_{\beta}^{\chi}n^{\chi}^{\chi}n^{\delta}$		
$\mathcal{A}_{2}^{\#1}_{\alpha\beta\chi}$	StrongGenSet[{1, 2}, GenSet[-(1,2)]]	$\frac{1}{2} \mathcal{A}_{\alpha\beta\chi} + \frac{1}{4} \mathcal{A}_{\alpha\chi\beta} - \frac{3}{8} \eta_{\beta\chi} \mathcal{A}_{\alpha\delta}^{} - \frac{1}{4} \mathcal{A}_{\beta\chi\alpha} + \frac{3}{8} \eta_{\alpha\chi} \mathcal{A}_{\beta\delta}^{} - \frac{3}{8} \mathcal{A}_{\beta\delta}^{} n_{\alpha} n_{\chi} + \frac{3}{8} \mathcal{A}_{\alpha\delta}^{} n_{\beta} n_{\chi} + \frac{1}{4} \mathcal{A}_{\beta\chi\delta} n_{\alpha} n^{\delta} + \frac{1}{2} \mathcal{A}_{\beta\delta\chi} n_{\alpha} n^{\delta} + \frac{1}{4} \mathcal{A}_{\chi\delta\beta} n_{\alpha} n^{\delta} + \frac{3}{8} \eta_{\beta\chi} \mathcal{A}_{\delta\epsilon}^{} n_{\alpha} n^{\delta} - \frac{1}{4} \mathcal{A}_{\alpha\chi\delta} n_{\beta} n^{\delta} - \frac{1}{2} \mathcal{A}_{\alpha\delta\chi} n^{\delta$		