

PSALTer kinematic panel

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

Fundamental fields

Fields	Symmetries	SO(3)	Sources
$\theta_{\alpha\beta}$	StrongGenSet[{ }, GenSet[]]	$\frac{1}{3} \, \eta_{\alpha\beta} \, 0^+ \, \theta + \frac{1}{1^+} \, \theta_{\alpha\beta} + \frac{1}{2^+} \, \theta_{\alpha\beta} + \frac{1}{1^-} \, \theta_\beta \, n_\alpha + \frac{1}{1^-} \, \theta_\alpha \, n_\beta - \frac{1}{3} \, 0^+ \, \theta \, n_\alpha \, n_\beta + 0^+ \, \theta \, n_\alpha \, n_\beta$	$\omega_{\alpha\beta}$

SO(3) irreps

SO(3)	Symmetries	Expansion	Sources
$\frac{1}{0^+} \, \theta$	StrongGenSet[{ }, GenSet[]]	$\theta_\alpha^\alpha - \theta^{\alpha\beta} \, n_\alpha \, n_\beta$	$\frac{1}{0^+} \, \omega$
$\frac{2}{0^+} \, \theta$	StrongGenSet[{ }, GenSet[]]	$\theta^{\alpha\beta} \, n_\alpha \, n_\beta$	$\frac{2}{0^+} \, \omega$
$\frac{1}{1^+} \, \theta_{\alpha\beta}$	StrongGenSet[{1, 2}, GenSet[-(1,2)]]	$\frac{\theta_{\alpha\beta}}{2} - \frac{\theta_{\beta\alpha}}{2} + \frac{1}{2} \, \theta_\beta^\chi \, n_\alpha \, n_\chi - \frac{1}{2} \, \theta_\beta^\chi \, n_\alpha \, n_\chi - \frac{1}{2} \, \theta_\alpha^\chi \, n_\beta \, n_\chi + \frac{1}{2} \, \theta_\alpha^\chi \, n_\beta \, n_\chi$	$\frac{1}{1^+} \, \omega_{\alpha\beta}$
$\frac{1}{1^-} \, \theta_\alpha$	StrongGenSet[{ }, GenSet[]]	$\theta_\alpha^\beta \, n_\beta - \theta^{\beta\chi} \, n_\alpha \, n_\beta \, n_\chi$	$\frac{1}{1^-} \, \omega_\alpha$
$\frac{2}{1^-} \, \theta_\alpha$	StrongGenSet[{ }, GenSet[]]	$\theta_\alpha^\beta \, n_\beta - \theta^{\beta\chi} \, n_\alpha \, n_\beta \, n_\chi$	$\frac{2}{1^-} \, \omega_\alpha$
$\frac{1}{2^+} \, \theta_{\alpha\beta}$	StrongGenSet[{1, 2}, GenSet[(1,2)]]	$\frac{\theta_{\alpha\beta}}{2} + \frac{\theta_{\beta\alpha}}{2} - \frac{1}{3} \, \eta_{\alpha\beta} \, \theta_\chi^\chi + \frac{1}{3} \, \theta_\chi^\chi \, n_\alpha \, n_\beta - \frac{1}{2} \, \theta_\beta^\chi \, n_\alpha \, n_\chi - \frac{1}{2} \, \theta_\beta^\chi \, n_\alpha \, n_\chi - \frac{1}{2} \, \theta_\alpha^\chi \, n_\beta \, n_\chi - \frac{1}{2} \, \theta_\alpha^\chi \, n_\beta \, n_\chi + \frac{1}{3} \, \eta_{\alpha\beta} \, \theta^{\chi\delta} \, n_\chi \, n_\delta + \frac{2}{3} \, \theta^{\chi\delta} \, n_\alpha \, n_\beta \, n_\chi \, n_\delta$	$\frac{1}{2^+} \, \omega_{\alpha\beta}$