

Transverse spin structure of octet baryons

Wednesday, 25 July 2018 15:00 (20 minutes)

The transverse spin structure of matter is a subject of research that has not been thoroughly explored experimentally, providing the opportunity to produce key insight from lattice QCD. We present the latest results of the transverse spin densities of the octet baryons through analysis of electromagnetic and tensor form factors. We employ $N_f = 2 + 1$ flavours of $\mathcal{O}(a)$ -improved Wilson fermions, generated with the average quark mass held fixed at its physical value. By performing an SU(3) flavour-breaking expansion of the form factors, we extrapolate to physical pion mass. From this we show the spin-spin correlations and the transverse density distributions of the octet baryons.

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Session Classification: Hadron Structure

Track Classification: Hadron Structure