

Transverse spin densities from lattice QCD

Presenter: Philipp Hägler (TU Munich)

M. Göckeler, Ph. Hägler, R. Horsley, D. Pleiter, P.E.L. Rakow, A. Schäfer, G. Schierholz, J.M. Zanotti (QCDSF/UKQCD collaborations)

Abstract: Recent results on moments of quark helicity flip generalized parton distributions of the nucleon are presented for a large number of coupling constants and pion masses. The simulations are based on two flavours of clover-improved Wilson Fermions. Quark helicity flip GPDs play a fundamental role for the transverse spin structure of the nucleon, and our results show a complex interplay of spin and coordinate degrees of freedom.