Single-Spin Asymmetries

Werner Vogelsang

Physics Department, Brookhaven National Laboratory, Upton, New York 11973, USA

Single-transverse spin asymmetries play an important role for our understanding of QCD and of nucleon structure. They have a long history, starting from the 1970s and 1980s when surprisingly large asymmetries were observed in hadronic reactions such as pp-> pi X at forward angles of the produced pion. The last few years have seen a renaissance in the experimental studies of single-spin asymmetries, with new results coming from lepton scattering and now from RHIC. Major breakthroughs have also been made on the theory side. The talk gives a theory-focused review of the current state of the field and its recent developments.