

The Helicity Structure of the Nucleon from Lepton Scattering

Elke-Caroline Aschenauer

DESY (Germany)

The question after the individual parton (quarks and gluons) contributions to the spin of the nucleon is even after 20 years of experimental efforts not yet solved. After several very precise measurements in polarized deep inelastic scattering it is clear, that the spin of the nucleon can not be explained by the contribution of the quarks alone. This is affirmed by the newest results from COMPASS, HERMES and JLAB on the inclusive spin structure function g_1 and on the individual contributions from the different quark flavors from semi-inclusive deep inelastic scattering data.

Recently COMPASS and HERMES have started to measure the gluon polarization by isolating the photon gluon fusion process in semi-inclusive deep inelastic scattering; latest results on the contribution of the gluons to the nucleon spin from these measurements will be discussed.