Abstract for an Invited Paper for the DNP06 Meeting of The American Physical Society

New Results on single spin asymmetries measured in DIS and polarised pp-scattering ELKE-C. ASCHENAUER, DESY

Azimuthal single spin asymmetries (SSA) in semi inclusive deep inelastic scattering (SIDIS) and polarized pp-scattering provide a tool to access transversity, the distribution of transversely polarized quarks in a transversely polarized nucleon. In addition the Sivers mechanism, the relation between intrinsic transverse quark momentum and the transverse momentum of the final hadron, can give rise to a nonzero SSA. For both the Collins and Sivers mechanism azimuthal moments for different hadronic final states are extracted from the COMPASS, HERMES and JLAB data taken with a transversely polarized targets. The latest results will also be presented from measurements of SSA in polarised pp-scattering from the RHIC experiments BRAHMS, PHENIX and STAR.