## Transverse Spin Phenomena in Lepton Scattering

## Anna Martin

University of Trieste and INFN Trieste (Italy)

The transverse spin structure of the nucleons is a new and interesting field, which recently advanced considerably both on the experimental and the theoretical side. Several complementary measurements in hard proton-proton and proton-antiproton scattering, and in lepton-nucleon scattering are being investigated and proposed to access transversity and transverse spin effects. In parallel, to get more and more insights in these new phenomena a large theoretical activity is ongoing.

This talk will concentrate on the measurements with transversely polarized targets in semiinclusive deep inelastic scattering, which are presently performed by the COMPASS and the HERMES experiments. Different channels are being studied and the new results for the Collins and Sivers single hadron asymmetries, the asymmetries in two-pion production and the transverse  $\Lambda$  polarization will be presented, together with their current interpretation.

The future perspectives in lepton-nucleon scattering, which include the physics programme at JLAB, will also be discussed.