

Recent HERMES results on exclusive meson production

Charlotte Van Hulse, for the HERMES collaboration

The HERMES experiment has collected a wealth of deep-inelastic scattering data using the 27.6 GeV polarized lepton beam at HERA and various pure gas targets, both unpolarized and polarized. This allowed for a series of diverse and unique measurements. Among them are measurements that provide information on the three-dimensional structure of the nucleon both in momentum space and in mixed momentum and position space. Results on hard exclusive processes, sensitive to generalized parton distributions and thus to the three-dimensional nucleon structure in mixed momentum and position space, are shown. In particular, spin density matrix elements and transverse-target spin asymmetries in exclusive omega production on unpolarized protons and deuterons and on transversely polarized protons, respectively, as well as helicity amplitude ratios from exclusive rho production on transversely polarized protons are presented.