Charm production at HERMES

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June 7, 1998

Abstract

Charm production in polarised deep–inelastic lepton nucleon scattering is believed to be one of the cleanest probes of the fraction of the nucleon spin ΔG carried by gluons. An extensive search for charm signals in the HERMES data from the years 1995–97 has been carried out. Clean signals for hidden and open charm could be extracted. The statistics are still limited, though, since the experimental conditions at HERMES are not in favour of charm detection. This talk will report on the ongoing analysis and present preliminary results. In the shutdown of 1997/98 major upgrades of the HERMES detector have been implemented, which will improve the charm reconstruction capabilities of the experiment significantly.