

原子核セミナー

下記のとおり講演会を開催いたします。奮って御参加ください。

『Probing the transverse spin of the nucleon at HERMES』

講師： Ralf Seidl (University of Erlangen, Physikalisches Institut II)

日時： 10月20日 (月) 16:30 ~ 18:00

場所： 南1号館 102A輪講室

概要

The spin of the nucleon and how its constituents contribute to it has given rise to the spin crisis in the early 90s when it was discovered that the spin of the quarks amounts only to 30% of it. HERMES was constructed to address this question by inclusive and semi-inclusive measurements. The latest status and its impact on QCD-fits will be given including recent results on the helicity distribution of the sea quarks. A yet unknown quantity of the nucleon is the transversity quark distribution which due to its chiral-odd nature can only be measured in semi-inclusive DIS in conjunction with a chiral-odd fragmentation function by azimuthal asymmetries. Measurements with a longitudinally polarized target have given rise that this fragmentation function called Collins function is nonzero. New results obtained from a transversely polarized target will be presented. In addition also the existence of the transverse momentum dependent distribution function f_{1T}^\perp which implies Orbital angular momentum of the quarks in the nucleon has been measured. Further measurements of exclusive processes addressing Generalized Parton Distributions will be shown.

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