

Interpretation of the unpolarized azimuthal asymmetries in SIDIS

Wednesday, 12 September 2018 14:55 (25 minutes)

The measurement of azimuthal modulations in hadron leptonproduction on unpolarised nucleons allows to get information on the intrinsic transverse momentum of quarks in a nucleon through both the Cahn effect and the Boer-Mulders function. In particular the latter describes a possible correlation between the intrinsic transverse momentum and the transverse spin of the quarks of an unpolarized nucleon.

We have compared the azimuthal asymmetries in the cross section of 160 GeV/c muons scattered off an unpolarised deuteron target as measured by COMPASS with a Monte Carlo program, based on the 3P0 model, which accounts for both the Cahn and the Boer-Mulders effects. Possible other contributions are also investigated.

Primary author: KERBIZI, Albi (TS)

Presenter: KERBIZI, Albi (TS)

Session Classification: 3D Structure of the Nucleon: TMDs

Track Classification: 3D Structure of the Nucleon: TMDs