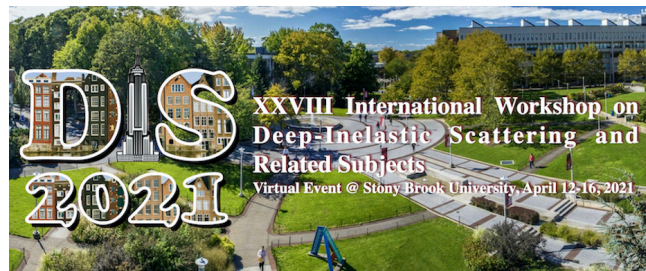


XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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Measurement of target spin (in)dependent asymmetries in dimuon production in pion-nucleon collisions at COMPASS

Tuesday, 13 April 2021 12:20 (20 minutes)

The exploration of the transverse spin structure of the nucleon by measuring the transverse-spin-dependent azimuthal asymmetries in Drell-Yan process is one of the main topics of the phase-II research programme of the COMPASS experiment (CERN, SPS-M2 beamline).

In 2015 and 2018 the experiment performed Drell-Yan measurements using a 190 GeV π^- beam interacting with a transversely polarized NH_3 target and unpolarized tungsten material. The angular coefficients λ , μ and ν that describe the unpolarized part of the Drell-Yan cross section have been extracted from the data collected with tungsten target. Obtained results provide important information to study various perturbative and non-perturbative QCD effects. Performed polarized measurements of the Sivers and other transverse azimuthal asymmetries in Drell-Yan provide a unique possibility to test predicted in QCD (pseudo-)universal features of related transverse momentum dependent parton distribution functions.

In this talk recent preliminary results from the COMPASS Drell-Yan programme will be presented together with related measurements from other experiments and available model predictions.

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