



Contribution ID: 75

Type: **not specified**

Weighted Sivers asymmetry in SIDIS at COMPASS

Monday, 11 December 2017 11:55 (25 minutes)

The Sivers function - one of the most interesting transverse momentum dependent parton distribution functions - can be accessed in the semi-inclusive deep inelastic scattering of leptons off transversely-polarised nucleons by measuring the Sivers asymmetry in hadron production. COMPASS has measured it to be nonzero using a muon beam and a transversely polarised NH₃ target. In this talk, the new results of the Sivers asymmetry weighted by powers of the outgoing hadron momentum P_T are presented. The weighted asymmetry can be interpreted as a product of the quark Sivers function and fragmentation function, unlike the conventional asymmetry, which is their convolution. The potential of the weighted method is illustrated on a Sivers function first moment extraction. The result is used to make a straightforward comparison with the weighted asymmetry measured in the Drell-Yan process, recently released by COMPASS.

Primary author: MATOUSEK, Jan (INFN Trieste)

Presenter: MATOUSEK, Jan (INFN Trieste)

Session Classification: Session I-b