

## COMPASS results on weighted Sivers asymmetry in SIDIS

*Monday, 10 September 2018 14:55 (25 minutes)*

The COMPASS Collaboration has recently measured the Sivers asymmetries weighted with the hadron transverse momentum, analyzing the high statistics data sample collected in 2010 to measure semi-inclusive deep inelastic scattering on a transversely polarised proton target.

These asymmetries provide direct information on the Sivers function, which is one of the most studied transverse momentum dependent distributions.

Their dependence on Bjorken  $x$  and  $z$ , the relative hadron energy, have been investigated and compared with the standard unweighted Sivers asymmetries and with the expectations in the present theoretical framework. The results for the first transverse moments of the Sivers distributions for  $u$  and  $d$  quarks obtained in a model independent way from the weighted Sivers asymmetries will also be shown and compared with previous extractions.

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**Session Classification:** 3D Structure of the Nucleon: TMDs

**Track Classification:** 3D Structure of the Nucleon: TMDs