## **TRANSVERSITY 2017**



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## Weighted Sivers asymmetry in SIDIS at COMPASS

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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 PT 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.

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