## DIS 2015 - XXIII. International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 103

Type: not specified

## **Extraction of the distribution function** $h_{1T}^{\perp}$ from experimental data

We attempt an extraction of the pretzelosity distribution  $(h_{1T}^{\perp})$  from preliminary COMPASS, HERMES, and JLAB experimental data on  $\sin(3\phi_h - \phi_S)$  asymmetry on proton, and effective deuteron and neutron targets. The resulting distributions, albeit with big errors, for the first time show tendency for up-quark pretzelosity to be positive and down-quark pretzelosity to be negative. A model relation of pretzelosity distribution and orbital angular momentum of quarks is used to estimate contributions of up and down quarks.

Author: PROKUDIN, Alexei (Jefferson Lab)

Co-author: LEFKY, Christopher (Creighton University, Omaha, Nebraska 68102, USA)

Presenter: PROKUDIN, Alexei (Jefferson Lab)

Track Classification: WG6 Spin Physics