Contribution ID: **224** Type: **Talk in Parallel Session at DIS2013**

Unpolarized azimuthal asymmetries in SIDIS at COMPASS

Thursday 25 April 2013 08:30 (20 minutes)

The study of the spin structure of the nucleon and of the effects
due to the quarks transverse momentum are part of the scientific program of COMPASS, a fixed target experiment at the CERN SPS.
The azimuthal modulations which appear in the cross-section of SIDIS off unpolarised targets give insight on the intrinsic momentum structure of the nucleon and on the possible correlation between transverse spin and transverse momentum of the quarks.
We present the results for the amplitudes of the $\cos(\phi)$, $\cos(2\phi)$, and $\sin(\phi)$ modulatuions (where ϕ is the azimuthal hadron angle in the gamma-nucleon system) obtained from the COMPASS data collected with a 160 GeV/c positive muon beam impinging on a deuteron target.
The amplitudes are measured separately for positive and negative hadrons, and the results on the dependence of the relevant kinematical variables obtained after a multi dimensional analysis are also presented.

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Session Classification: WG6: Spin

Track Classification: Spin Physics