Contribution ID: **151** Type: **not specified**

Single hadron Collins and Sivers measurements by COMPASS

Tuesday 17 April 2007 16:50 (20 minutes)

The CERN COMPASS experiment is on the floor collecting data since 2002; in the years 2002,
2003, and 2004 data were collected using a 160 GeV polarized muon beam and a 6LiD polarized target. In about 20% of the running time the target polarisation was oriented transversely with respect to the muon beam direction to measure transverse spin effects in semi inclusive deep inelastic scattering, one of the main objectives of the COMPASS spin program.
Here the results for the Collins and the Sivers asymmetries, both for unidentified and identified
hadrons (pi+, pi−, K± and K0) from the whole data sample are presented, together with the projected statistical error for the proton run foreseen in 2007. The measured asymmetries on the 6LiD target are small and compatible with zero within the few percent statistical errors, an important result which can be interpreted as cancellation between u and d quark in the deuteron and which allows to better constrain the parton distribution functions.

Primary author: BRESSAN, Andrea (INFN Trieste)

Presenter: BRESSAN, Andrea (INFN Trieste)

Session Classification: Spin Physics

Track Classification: Spin Physics