

Abstract Submitted
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Study of nucleon spin structure with a transversely polarized target in COMPASS TAKAHIRO IWATA, Yamagata University, COMPASS COLLABORATION — The nucleon spin structure is studied in COMPASS at CERN by the measurement of the double spin asymmetry of the semi inclusive deep inelastic scattering of a polarized muon at 160 GeV/c off a polarized ${}^6\text{LiD}$ target. The target can be polarized transversely, as well as longitudinally, with respect to the longitudinally polarized muon beam. This allows the measurement of the Collins and Sivers asymmetries and two-hadron production asymmetries. The Collins and the two-hadron production asymmetries have a connection to the transverse spin distribution function $\Delta_{Tq}(x)$, referred to as transversity. Approximately 20% of the beam-time in 2002, 2003 and 2004 was spent in the transverse configuration. The preliminary results of the analysis of the data obtained in 2002 and 2003 are presented.

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