

Abstract Submitted
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Quark helicity distributions from DIS and SIDIS at COMPASS

TATSURO MATSUDA, University of Miyazaki, TAKAHIRO IWATA, Yamagata University, NAOAKI HORIKAWA, Chubu University, TAKEO HASEGAWA, University of Miyazaki, SHIGERU ISHIMOTO, KEK, NORIHIRO DOSHITA, KAORI HORIKAWA, TAKUMA MICHIGAMI, Yamagata University, COMPASS COLLABORATION — The COMPASS collaboration at CERN is measuring the spin structures of nucleon. At this meeting we will present the inclusive asymmetry $A_{1,d}$ and the semi-inclusive asymmetries $A_{1,d}^{pi+}$, $A_{1,d}^{pi-}$, $A_{1,d}^{K+}$, $A_{1,d}^{K-}$ measured in the polarized deep inelastic muon-deuteron scattering. The data cover the range $Q^2 > 1 \text{ GeV}^2$ and $0.004 < x < 0.3$. These results were obtained from the data collected in years 2002-2004 and 2006. We will also present the valence, non-strange sea and strange quark helicity distributions extracted from the LO analysis using these results. The strange quark distribution is compatible with zero in the whole measured range.

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