Single Hadron Transverse Spin Asymmetries from COMPASS

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In the years 2002, 2003, and 2004 the COMPASS Collaboration has dedicated about 20% allocated beam time to the measurement of transverse spin asymmetries using a transversely polarized 6 LiD target and the 160 GeV/c μ^+ beam of the CERN SPS.

The analysis of single spin asymmetries of both identified and non-identified hadrons has now been finalized. A total of 10.5 millions of DIS events ($Q^2 > 1 \text{ GeV}^2$) have been reconstructed and the results are given for the Collins and Sivers asymmetries of both the leading hadron and all the hadrons in the current jet of the event.

The measured asymmetries are small, if any, and the small statistical errors (the systematic errors are believed to be considerably smaller) allow to put tight constrains on the relative contribution of the d quark.