

DeltaG/G from Open Charm Events at COMPASS

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One of the main goals of the COMPASS experiment at CERN is to measure the gluon polarization, $\Delta G/G$ in the nucleon, which can be accessed through spin asymmetries of polarized photon-gluon fusion processes (PGF). A very clean way to tag PGF events is to look for charmed mesons, such as

D^* or D_0 , in the final state. All COMPASS data taken with a deuteron target (2002-2006) are analysed.

Since this channel is statistically limited, a weighted method was developed to minimize the statistical error. In the new analysis presented here, the weight is improved and contains more information on the probability for an event for being a PGF process. The new weighting has been applied on already released 2002-2004 data but also on data taken in 2006, resulting in a statistical error reduced by a factor 1.7.

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