

Polarized parton densities and higher twist in the light of the recent CLAS and COMPASS data

Tuesday 17 April 2007 10:00 (20 minutes)

The results of a new NLO QCD analysis of the world data on inclusive polarized DIS are presented. The very precise CLAS proton and deuteron data, as well as the latest COMPASS data on the asymmetry A_1^d were included in the analysis, and the impact of these data on polarized parton densities and higher twist effects has been studied. It is demonstrated that the low Q^2 CLAS data improve essentially our knowledge of higher twist corrections to the spin structure function g_1 , while the large Q^2 COMPASS data influence mainly the strange quark density. It is also shown that a negative polarized gluon density, or one that changes a sign as a function of x , cannot be ruled out on the basis of the present DIS data.

Author: STAMENOV, Dimitar (INRNE, Sofia)

Presenter: STAMENOV, Dimitar (INRNE, Sofia)

Session Classification: Spin Physics

Track Classification: Spin Physics