Overview of Spin Physics at COMPASS

Alain Magnon for the COMPASS Collaboration

CEA-Saclay, DSM/DAPNIA/SPhN, 91191 Gif-Sur-Yvette Cedex FRANCE

COMPASS uses the high energy longitudinally polarized muon beam at CERN SPS and a large polarized solid target which provides longitudinal or transverse polarizations with the goal of studying several aspects of the nucleon spin structure. An overview of the recent results obtained with a ⁶LiD target will be given. It concerns measurements of longitudinal double spin cross-section asymmetries for the inclusive DIS, for the production of high p_T hadron pairs and D mesons (direct determination of Δ G/G) and for the production of ρ vector mesons, measurements of Collins and Sivers asymmetries with a transversely polarized target, measurements of transverse and longitudinal polarizations for produced Lambda. COMPASS has resumed data taking in 2006 with a substantially upgraded apparatus which will be presented. Future prospects will be discussed.