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New COMPASS results on the spin structure function g_1^p, and QCD fit

Tuesday, 29 April 2014 14:00 (30 minutes)

The COMPASS experiment at CERN SPS has taken data with a polarised muon beam scattering off a polarised NH_3 target in 2011. The beam energy has been increased to 200 GeV compared to 160 GeV in 2007 and thus, higher values of Q^2 and lower values of x are reached.
We will present our results on the longitudinal double spin asymmetry A_1^p and the spin-dependent structure function g_1^p. These results are used in a NLO QCD fit to the world data to obtain the polarised parton distributions and also to update our results on the Bjorken sum rule, connecting the integral of the non-singlet structure function with the ratio of the weak coupling constants.
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