XLIX Arbeitstreffen Kernphysik 2018



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The proton structure from DIS at HERA and the role of charm quarks and higher twist

Thursday 15 February 2018 17:00 (30 minutes)

The Deep Inelastic Scattering data from HERA are a core of every extraction of parton densities in the proton. The final combination of the H1 and ZEUS data has been done and presents a sample of very precise and well understood measurements, with a detailed knowledge of systematic uncertainties and correlations. It may be used in QCD global analysis that go beyond determination of the proton structure - like estimation of heavy quark masses and their scale dependence, measuring of electroweak couplings, searches for contact interactions or studies of the low-x higher twist effects. The inclusive HERA measurements will be presented and some of the mentioned above analysis will be explain in details.

subject areas

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