

DESY Forum on LGT and Structure Functions

30 November 2004, 17:00, DESY Hörsaal

A. Cooper-Sarkar (Oxford)

Using Deep Inelastic Scattering Data to measure parton distributions 1984-2004

The formalism whereby the QCD improved parton model gives predictions for the scale evolution of PDFs but not their shape is briefly reviewed. It is shown how the knowledge of PDFs has improved from 1984 to the present. Different modern PDFs are compared. Uncertainties on the PDFs in different kinematic regimes, uncertainties on the theoretical formalism and what still needs to improve is discussed. Finally the relevance of these results for future collider physics discoveries is described.

A. Shindler (DESY-Zeuthen)

Structure functions on the lattice

The information on hadron structure functions coming from lattice QCD can be a useful complement to that usually obtained from combining perturbative computations and experimental data.

I discuss recent progress in this direction as well as the systematic uncertainties of such lattice computations.

- Tea and cookies will be served at 16:45 in the lobby.
- After the seminar there is a chance for private discussions with the speaker over wine and pretzels also in the lobby.