

# DESY Seminar

14 December 2004, 17:00, DESY Hörsaal

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## *On the Way to QCD Precision Tests with Deep Inelastic Scattering*

Deep inelastic scattering provides one of the cleanest possibilities to measure the QCD scale  $L_{QCD}$ . Associated to it, precision unfolding of the twist-2 parton distributions is possible. With the advent of the 3-loop anomalous dimensions the analysis reaches a new level of accuracy. We describe recent progress using Mellin-space analysis programs. They are particularly suited to implement mathematically simple, exact forms for the coefficient and splitting functions to 3-loop order, including heavy flavor contributions. This method also allows to study scheme-invariant QCD evolution, which is suited, as a second method, to control the outcome of the analysis. Results are reported on the non-singlet analysis of the world data, which may soon be compared with upcoming results of non-perturbative simulations.

- 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.