



Analysis Centre Seminar:

Heavy-flavor treatment at NNLO in CTEQ PDF analysis.

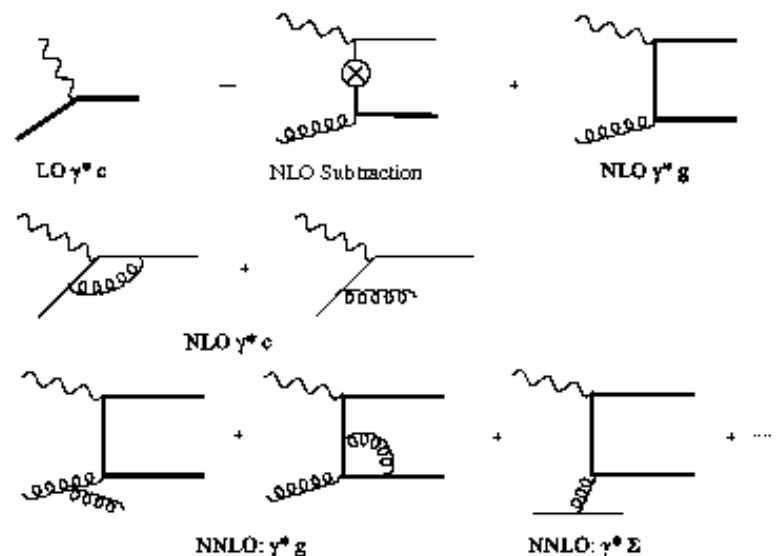
Marco Guzzi (Southern Methodist University)

Tuesday, 24 April 2012, 16:00 h
DESY Auditorium

Correct computation of heavy-quark contributions to deep-inelastic scattering in the global PDF analysis is essential for predicting precision cross sections for W and Z boson production at the LHC. Quark mass effects on DIS cross sections are comparable to next-to-next-to leading order (NNLO) contributions, therefore they must be included consistently in perturbative computations.

We illustrate the S-ACOT- χ scheme which is the default general-mass framework of CTEQ global PDF analyses and it is an improved formulation of the original ACOT scheme.

We discuss an NNLO realization of S-ACOT- χ for treatment of heavy-flavour production in neutral current deep-inelastic scattering. Practical implementation of the NNLO calculation is also illustrated on the example of semi-inclusive structure functions $F_{2c}(x, Q)$ and $FL_c(x, Q)$.



- Coffee, tea and cookies will be served at 15.45h
- After the seminar there is a chance for private discussions with the speaker over wine and pretzels

