Contribution ID: **49**   Type: **not specified**

AAMQS: a non-linear QCD phenomenological tool

Thursday, 2 September 2010 15:20 (40 minutes)

Recent developments in the computation of the NLO improvement for non-linear QCD evolution equations has allowed, for the first time, for the consistent description of experimental data using a first principle approach including non-linearities. In particular, the Balitsky-Kovchegov equation including running coupling effects (rcBK) has been shown to provide an excellent global description of inclusive DIS data.

I will present the results of global fits to proton data (with and without heavy quarks), and discuss the ongoing effort to extend to the nuclear case, performed in a numerical implementation of rcBK. The resulting parametrizations allow for the reliable computation of physical observables in a kinematical region (relevant for both p-p and A-A programmes at the LHC) where the standard DGLAP based techniques are expected to fail.

Author: Prof. MILHANO, Guilherme (CENTRA-IST (Lisbon) & CERN-PH-TH)

Presenter: Prof. MILHANO, Guilherme (CENTRA-IST (Lisbon) & CERN-PH-TH)