

Lundi 26 janvier 11h00

CEA-Saclay Bât 141, salle André Berthelot

Building up the hera legacy : impact on LHC

CLAUDE VALLÉE

CPPM

The probe of the proton structure and dynamics at the electron-proton collider HERA is of crucial interest for the predictions of proton-proton processes at the LHC. The H1 and ZEUS experiments are now in the final analysis phase of their full data sets and reaching their ultimate precision to many respects. After a brief summary of the most relevant investigations of new physics performed at HERA at the high energy frontier, the presentation will focus on the latest high-precision measurements of the proton structure and dynamics and their implications for LHC.

A review of the present limitations on LHC predictions associated to the parton distributions will be given. The recent breakthrough in precision on the low-x proton structure, resulting from the combination of ZEUS and H1 data, will be presented together with its impact on LHC predictions.

Detailed studies of the proton dynamics, especially in the very low-x regime where new QCD effects could appear at LHC, will also be addressed.

Le café sera servi 10 minutes avant.

NB : La présentation d'une pièce d'identité est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance Emilie Chancrin, tél. 01 69 08 23 50, e-mail : emilie.chancrin@cea.fr. (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).