

**Lundi 30/01/2017, 11h00-12h00**

CEA-Saclay Bat 141, salle Andr © Berthelot

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# **LHC measurements for constraining parton distribution functions**

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The precise determination of parton distribution functions (PDFs) is of fundamental importance for the physics at the LHC. For example, precision measurements of electroweak observables, as the W-boson mass and the weak-mixing angle, the Higgs cross-section predictions, as well as various searches for physics beyond the standard model, are currently limited by the incomplete knowledge of the PDFs. The LHC experiments have performed several measurements of jets, Drell-Yan, prompt-photon, and top-antitop processes providing additional constraints to the PDFs which are complementary to those of deep-inelastic scattering (DIS) data. The inclusion of the LHC measurements into the global parton density fits allows the reduction of the PDF uncertainties.

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Le caf © sera servi 10 minutes avant.

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