



Lrfu

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**Séminaire
SPP**

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CEA-Saclay Bat 141, salle André Berthelot

W and Z boson production at the LHC and the implications for the knowledge of the proton structure

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The LHC has already now produced millions of the heavy electroweak gauge bosons W and Z in the leptonic decay channels. These allow for detailed studies of the proton structure and the electroweak sector of the standard model. Thanks to the high production rates and the outstanding performance of the LHC detectors, the experimental measurements can be pushed to very high precision, which can actually be matched from the theory side with predictions available at up to NNLO in QCD and NLO in electroweak. In the presentation I will review the recent W and Z measurements from the LHC with emphasis on the ATLAS results. These measurements start to contribute to our knowledge of the proton structure already now and will do so even more in the near future. One of the interesting results from the first 1-2 years of LHC data are the results on the flavour decomposition of the light quark sea and the amount of strangeness.

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 Martine Oger, tél. 01 69 08 23 50, e-mail : martine.oger@cea.fr. (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).