



Lrfu

Institut de recherche
sur les lois fondamentales
de l'Univers

**Séminaire
SPP**

Lundi 01/09/2014, 11h00

CEA-Saclay Bat 141, salle André Berthelot

LHC status after the long shutdown and prospects for Run 2

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A major incident during magnet powering in September 2009 revealed an important quality issue of the interconnects between the LHC main magnets. This resulted in a reduced beam energy of 3.5 and 4 TeV during LHC Run 1 which ended in March 2012. Despite the lower energy a remarkable luminosity performance could be achieved, leading to the discovery of the Higgs boson by ATLAS and CMS. This first run was followed by a long shutdown of around 15 months to repair the LHC interconnects and to perform major improvement and maintenance work. Recommission of the magnet system for a target energy of 6.5 TeV will start in August 2014, while the start-up with beam is expected at the beginning of 2015. This presentation will recall the main points and limitations of LHC Run 1 and explain the key consolidation work that was performed during the long shutdown. Scenarios for operation and performance for LHC Run 2 starting in 2015 will be presented.

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).