



Irfu

Institut de recherche
sur les lois fondamentales
de l'Univers

**Séminaire
DPhP**

Lundi 18/05/2020, 11h00

CEA-Saclay Bât. 141, salle André Berthelot

**The FASER experiment at the LHC :
Looking forward to new physics...**

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CERN

The FASER experiment is a new small and inexpensive experiment that will be placed 500 meters downstream of the ATLAS experiment at the CERN LHC. The experiment will shed light on currently unexplored phenomena, having the potential to make a revolutionary discovery. FASER is designed to capture decays of exotic particles, produced in the very forward region, out of the ATLAS detector acceptance. FASERnu, a recently proposed FASER sub-detector, is designed to detect collider neutrinos for the first time and study their properties. FASER was approved by CERN in 2019, with the FASERnu detector approved at the end of 2019. This seminar will present the physics prospects, the detector design, and the construction progress of FASER. The experiment is expected to be installed in 2020 and to take data during the LHC Run-3, starting in 2021.

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.