

Lundi 07/01/2019, 11h00

CEA-Saclay Bât. 141, salle André Berthelot

**The GRAND project and its pathfinder,
the GRANDProto300 experiment**

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The Giant Radio Array for Neutrino Detection is a proposal for a giant observatory for cosmic particles (neutrinos, ultra-high energy cosmic rays and gamma rays). The detector will be composed of 20 subarrays of 10000 antennas each, totaling a detection area of 200'000 km², detecting these particles through the radio emission associated with the air showers induced by these cosmic particle in the atmosphere.

I will detail the very ambitious science program of GRAND and the challenges that will have to be tackled before its completion, expected in the early 2030's. I will also present the GRANDProto300 experiment, a pathfinder for GRAND, which primary goal is to validate GRAND's detection principle, but also a scientific experiment of its own, with a rich science program centered on the study of cosmic rays in the 10^{16.5}-10¹⁸eV energy range, where transition between galactic and extragalactic origin is expected to occur.

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).