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CEA-Saclay Bat 141, salle André Berthelot

Recent results from the IceCube neutrino detector at the South Pole

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The construction of IceCube at the Amundsen-Scott South Pole Station was completed at the end of 2010 after eight construction seasons. The detector consists of 86 cables each with 60 digital optical modules that view a cubic kilometre of ice between 1450 and 2450 meters below the surface. IceCube includes a sub-array called DeepCore consisting of 8 special cables that provide a more densely instrumented portion with a lower energy threshold in the deep centre of the array. IceCube also includes an air shower array called IceTop directly above the deep detector.

Data taking and analysis began during construction and continues with the completed detector. As a large, three-dimensional neutrino and cosmic-ray detector, the capabilities of IceCube range from its primary goal of neutrino astronomy to searches for dark matter, to the study of neutrino properties, and to the study of the anisotropy and spectrum of high-energy cosmic rays. In this talk an overview of the latest results from IceCube 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).