
The IceCube Neutrino Telescope

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IceCube is a kilometer-scaled neutrino telescope presently under construction at the South Pole. It is the successor of the AMANDA neutrino telescope which takes data since the year 2000.

Detectors such as IceCube are discovery experiments covering astronomy, particle physics and cosmology and are going to open a new window to the high energy Universe.

Physics results from AMANDA cover the search for diffuse or point-like astrophysical sources of high energy neutrinos, the measurement of atmospheric neutrinos and related particle physics questions, the measurement of spectrum and mass composition of charged cosmic rays, the search for exotic particles like dark matter candidates or magnetic monopoles, and the monitoring of the Galaxy for supernova explosions.

IceCube will cover a cubic kilometer of Antarctic ice. The detector is located at the South Pole and will consist of 80 strings with a total of 4800 photomultipliers. 22 strings have been deployed in the previous seasons. The full detector is planned to be completed in the season 2010/11.

The talk will report physics results from AMANDA and IceCube and describe the status of IceCube and the actual achievements of the present polar season.

Lundi 17 décembre à 15h

Salle André Berthelot, bât. 141

Le café sera servi 15 minutes avant

NB : La présentation d'une carte d'identité ou d'un passeport est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance de leur visite Emilie Chancrin, tél. 01 69 08 23 50 (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).

