detector seminar

SPEAKER: Summer Blot

TITLE: **The IceCube Neutrino Observatory: high-energy neutrino detection at the South Pole**

DATE: 25 Jan 2019, 11:00

PLACE: 40-S2-A01 - Salle Anderson

ABSTRACT

The IceCube Neutrino Observatory is a pioneering, cubic kilometre-sized neutrino telescope located at the geographic South Pole. Since its discovery of the astrophysical neutrino flux, IceCube has continued to provide invaluable knowledge about both potential neutrino sources and neutrino properties at the GeV-PeV scale through its detection of neutrino interactions via Cherenkov radiation in the optically clear, deep ice. In addition, IceCube is a strong partner in the field of multi-messenger astronomy, which involves rapid follow-up of neutrino events with good pointing precision. I will outline the design and performance of the existing IceCube detector, with an emphasis on the latest detector upgrades and calibrations. I will also highlight some recent, exciting results, and discuss the plans for future extensions including the upcoming IceCube Upgrade, which will deploy new optical modules into the ice along with improved calibration devices, and layout the vision for IceCube-Gen2.

Organised by: Dominik Dannheim