EP Seminar

SPEAKER: Prof. Olga Botner (Uppsala University)

TITLE: **Catching cosmic clues in the ice - recent results from IceCube**

DATE: Tue 11/02/2014 11:00

PLACE: Council Chamber

ABSTRACT

IceCube is a neutrino observatory located deep in the Antarctic glacier close to the geographical South Pole. Close to a gigaton of ice has been instrumented with optical sensors with the primary goal of searching for neutrinos from the still unknown sources of the highest-energy cosmic rays. Last year, IceCube observed for the first time ever a handful of high-energy neutrinos which must have originated outside the solar system. The discovery was named the 2013 Breakthrough of the Year by the British magazine Physics World. It is the first necessary step to actually achieve the dream of charting the places in the universe able to accelerate hadrons to energies over a million times higher than those at the LHC. The science goals of IceCube extend beyond astrophysics: IceCube is also a powerful tool for searches of dark matter and can be used to study phenomena connected to the neutrinos themselves, like neutrino oscillations. The talk will be an update on the most recent results from IceCube.

Organised by: C. Lourenco, G. Unal..... **Tea and Coffee will be served at 10h30**