

Vulcano Workshop 2014 - Frontier Objects in Astrophysics and Particle Physics



Contribution ID: 8

Type: **not specified**

Neutrino observations with IceCube

Thursday, 22 May 2014 17:25 (25 minutes)

The IceCube Neutrino Observatory instruments a cubic kilometer of the Antarctic ice at the South Pole with a three-dimensional grid of light sensors in combination with a square kilometer surface array. The observatory was completed at the end of 2010, but the partially instrumented detector has been taking data since 2006. Several breakthroughs in the field have been accomplished, in particular the first evidence of a flux of high energy neutrinos of extraterrestrial origin and the unexpected lack of a significant signal in relation with Gamma Ray Bursts. We will discuss these results in detail and also cover other recent results such as the observation of atmospheric neutrino oscillations, the latest point source analysis, indirect dark matter searches and future proposed upgrades of the detector.

Primary author: GOLUP, Geraldina (IIHE- Vrije Universiteit Brussel)

Co-author: THE ICECUBE COLLABORATION, - (-)

Presenter: GOLUP, Geraldina (IIHE- Vrije Universiteit Brussel)

Session Classification: Neutrino