



**Laboratório de Instrumentação e  
Física Experimental de Partículas**

## **Seminário LIP\***

**Terça Feira, 29 de Maio 2018  
15:00**

### **Astroparticle physics with neutrinos at the South Pole**

**Juan Pablo Yanez**

The IceCube Neutrino Observatory, located deep underground at the geographic South Pole, is the largest neutrino detector in the world. The experiment uses over 5,000 photo-sensors to monitor a volume of one cubic kilometer of pristine ice, recording the Cherenkov light emitted by neutrino interaction products. By studying these signals, IceCube has demonstrated the existence of astrophysical neutrinos at very high energies, measured atmospheric neutrino oscillations, and searched for exotic physics beyond the standard. A summary of the status of the experiment, the most recent results, and the potential of proposed detector upgrades will be discussed.

\* Lugar: Sala de seminários (311)

LIP (Laboratório de Instrumentação e Física Experimental de Partículas)

Instituto Interdisciplinar de Investigação da Universidade de Lisboa

Av. Gama Pinto, 2, piso 3

Café e bolinhos às 14:30 na sala 312