Canadian Association of Physicists

Association canadienne des physiciens et physiciennes

Contribution ID: **2178** Type: **Invited Speaker / Conférencier(ère) invité(e)**

Astroparticle physics with neutrinos at the South Pole (I)

Thursday 14 June 2018 13:30 (30 minutes)

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.

Author: YANEZ, Juan-Pablo (University of Alberta)

Presenter: YANEZ, Juan-Pablo (University of Alberta)

Session Classification: R3-3 Particle Physics X (PPD) | Physique des particules X (PPD)

Track Classification: Particle Physics / Physique des particules (PPD)