



Contribution ID: 493

Type: talk

The PINGU detector

Friday, July 24, 2015 5:00 PM (15 minutes)

The world's largest neutrino telescope, the IceCube Neutrino Observatory, is built in one of the planet's most extreme environments at South Pole Station Antarctica. Completed in 2010, and instrumenting more than a cubic-kilometre of ice, IceCube has been designed to measure the flux of astrophysical neutrinos it recently discovered. It also comprises a low-energy detector array, called DeepCore, that has performed world-leading indirect dark matter searches and very high statistic studies of atmospheric neutrinos down to approximately 10 GeV. Building on the success of DeepCore, a new infill array called PINGU (the Precision IceCube Next Generation Upgrade) is now being proposed that will further reduce the in-ice energy threshold to a few GeV. Such a detector will be capable of significantly expanding the current low-energy program, including the potential to make a first determination of the neutrino mass ordering. In this talk we will discuss the design and sensitivity of the PINGU detector.

additional information

Submitted on behalf of the IceCube-PINGU collaboration

Primary authors: Prof. BÖSER, Sebastian (Universität Mainz); EHRHARDT, Thomas (Uni Mainz)

Presenter: EHRHARDT, Thomas (Uni Mainz)

Session Classification: Neutrino Physics

Track Classification: Neutrino Physics