"IceCube, Status and Results"

3:40 PM, January 26, 2012
109 Nicholson Hall

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Host: Michael Cherry

• Refreshments served at 3:15 PM in 232 (Library) Nicholson Hall •

IceCube, installed deep in the ice of the geographic South Pole, is the first cubic kilometer scale neutrino detector. A full complement of 86 strings, each comprised of 60 Digital Optical Modules (DOM), have been deployed and the full detector has been operational since summer of 2011. The detector has three distinct components: a surface array, called the IceTop, for air-showers, a 15-Mton deep core component with approximately eight times more DOM coverage for low energy neutrino detection and the main km$^3$-scale component. Although search for high energy astrophysical neutrinos is among the primary goals of the IceCube detector, it is the most powerful Supernova detector and it also provides unprecedented capabilities to perform a plethora of other fundamental physics such as neutrino oscillations, search for exotics, and dark matter search. These topics and some of the latest IceCube results will be presented.

Publications:

