

Abstract Submitted
for the APR07 Meeting of
The American Physical Society

Observation of Atmospheric Muon Neutrinos with the IceCube 9-String Detector JOHN PRETZ, University of Maryland, THE ICECUBE COLLABORATION — The IceCube Neutrino Detector is a cubic kilometer ice-Cherenkov detector being constructed in the deep ice under the geographic South Pole. IceCube is sensitive to high-energy muon neutrinos and muon anti-neutrinos by detecting the secondary muon produced when the neutrino interacts in or near the instrumented volume. The principal source of muon neutrinos are atmospheric neutrinos which come from the decay of hadrons in cosmic-ray air showers. IceCube operated during 2006 with 9 out of 80 anticipated strings in the ice. I will briefly describe the design and current status of the detector and the major physics goals. I discuss the initial performance of the detector and describe the first evidence that IceCube can find and reconstruct atmospheric neutrinos with reasonable efficiency.

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Date submitted: 15 Jan 2007

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