

Abstract Submitted  
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**Neutrino Point Source Searches with IceCube 22 String Configuration** MICHAEL BAKER, University of Wisconsin-Madison, ICECUBE COLLABORATION — The IceCube Neutrino Observatory is a  $km^3$  detector currently under construction at the geographic South Pole. IceCube will use 4800 optical modules deployed on 80 vertical strings between 1450 and 2450 m under the ice surface to detect and reconstruct high energy neutrino-induced charged leptons. Additional strings in a dense, deep core are also being deployed to lower the energy threshold. The detection of astrophysical neutrinos can help identify the sources of the highest energy cosmic rays since other messengers, such as photons or protons, are absorbed or deflected during propagation. In its 2007-2008 science run, IceCube collected data with 22 strings deployed. An analysis was performed looking for point sources of  $> 1$  TeV neutrinos, providing the best upper limits to date. No evidence for a neutrino source was found, with the highest excess being 2.2 sigma after accounting for all trials. Searches for bursts and periodic sources (e.g. microquasars), as well as future detector performance will also be presented.

Michael Baker  
University of Wisconsin-Madison

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