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## Search for neutrino point sources with the **IceCube Neutrino Observatory**

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(Submitted on 29 Oct 2010)

The IceCube Neutrino Observatory is a kilometer-scale detector currently under construction at the South Pole. The full detector will comprise 5,160 photomultipliers (PMTs) deployed on 86 strings from 1.45-2.45 km deep within the ice. As of the austral summer of 2009-10, 73 out of the total number strings have been deployed, and the detector is reaching its final construction phase. A dense sub-array of 6 strings in the center of the detector (DeepCore) has been already installed for enhancing the sensitivity to low energy neutrinos. The IceCube de- tection principle is based on the measurement of the Cherenkov light induced by ultra-relativistic muons and showers produced by neutrino interactions in the target matter of the detector. The main scientific goal of the IceCube experiment is the detection of astrophysical neu- trinos that will help to understand and settle the unresolved questions about the origin and nature of cosmic rays. In this contribution we will present the latest results of the experiment concerning the search for neutrino point sources using the experimental data taken during 2008- 09 where the detector was operated with a 40string configuration. The results of the analysis for steady individual neutrino sources as well as the stacking analysis from different catalogs will be presented.

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