

MAS16-2016-020001

E

Abstract for an Invited Paper
for the MAS16 Meeting of
the American Physical Society

IceCube and High Energy Neutrino Astronomy

NAOKO KURAHASHI NEILSON, Drexel University, ICECUBE COLLABORATION

The Universe has been studied using light since the dawn of astronomy, when starlight captured the human eye. The IceCube Neutrino Observatory sees the Universe in a new way, using high-energy neutrinos as the messenger. In 2013, a diffuse emission of neutrinos from the cosmos was discovered by IceCube. Now the hunt is on to identify the sources of such astrophysical neutrinos. After discussing the state of neutrino astronomy, plans for a streamlined real-time alert system for multi-messenger observations, and future plans of new detectors at the South Pole will also be presented.