

Search for high-energy neutrino emission from hard X-ray AGN

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The IceCube Neutrino Observatory has detected high-energy astrophysical neutrinos in the TeV-PeV range. These neutrinos have an isotropic distribution on the sky, and therefore likely originate from extragalactic sources. Active Galactic Nuclei (AGN) form a class of astronomical objects which are promising neutrino source candidates given their high electromagnetic luminosity and potential ability to accelerate cosmic rays up to energies larger than 10^{16} eV. Interactions of these cosmic rays within the AGN environment are expected to produce both neutrinos and pionic gamma rays. Some hadronic models of AGN emission suggest that such gamma rays can in turn interact with the dense photon fields of AGN and cascade down to hard X-rays and MeV gamma rays. We present an update on the IceCube stacking analysis searching for high-energy neutrinos from hard X-ray sources sampled from the *Swift*-BAT AGN Spectroscopic Survey (BASS).

Keywords

AGN; high-energy neutrinos, hard X-ray sources.

Collaboration

IceCube

other Collaboration

Subcategory

Experimental Results

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