

Abstract Submitted
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A Study of Spatially-Coincident IceCube Neutrinos and Fermi Gamma-Ray Sources¹ HANNAH SEYMOUR, RESHMI MUKHERJEE, Barnard College, MICHAEL SHAEVITZ, Columbia University, MARCOS SANTANDER, Barnard College-Nevis Laboratories — The IceCube neutrino telescope has detected very-high-energy neutrino events with energies between several hundred TeV to a few PeV beginning inside the detector. These events are unlikely to have originated in the atmosphere, and are suspected to come from astrophysical sources, the likes of which can also be observed in gamma rays by the Fermi Gamma-Ray Space Telescope. We present an analysis of archival GeV gamma-ray data collected with the Large Area Telescope onboard the Fermi satellite to search for gamma-ray sources spatially coincident with the locations of high-energy muon neutrinos detected by IceCube. The combined detection of gamma rays and neutrinos from an astrophysical source will allow us to identify cosmic-ray acceleration sites.

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