

Abstract Submitted
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Search for Neutrinos from the Supergalactic Plane STEPHEN SCLAFANI, Drexel Univ, THE ICECUBE COLLABORATION COLLABORATION — Point sources that produce high energy neutrinos remain elusive. While multiple studies have focused on high energy cosmological phenomenon such as gamma ray bursts, few have looked for correlation with local superstructures like the supergalactic plane that can produce these neutrinos not only directly but also through secondary cosmic ray interactions. Interaction within galactic media can produce neutrinos that can be observed in IceCube, a Cherenkov detector buried at the south pole in one and a half kilometers of glacial ice. The density of local galaxies in the sky, as surveyed by the Two Micron All Sky Survey (2MASS) provide a spacial template for the supergalactic plane. The 2MASS Survey is an infrared survey of over 300 million astrophysical objects and contains over 45,000 local galaxies' position and redshift. Spacial templates for the supergalactic plane are tested with one year of event data from Icecube. This analysis will aid in the understanding of the methods of production of high energy neutrinos and cosmic rays.

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