

Abstract Submitted
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The Search for Sources of High Energy Astrophysical Neutrinos with VERITAS AVA GHADIMI, CUNY Baccalaureate for Unique and Interdisciplinary Studies, Baruch College, MARCOS SANTANDER, Barnard College, Columbia University, VERITAS COLLABORATION — The IceCube collaboration has reported the detection of an all-sky astrophysical flux of high-energy neutrinos. So far, no neutrino point sources have been detected. The VERITAS (Very Energetic Radiation Imaging Telescope Array System) gamma-ray observatory has observed the sky in the direction of muon neutrino events of potential astrophysical origin looking for gamma-ray emission. Hadronic gamma-rays are expected to be produced in the same cosmic-ray interactions that lead to the emission of the high-energy neutrinos detected by IceCube. We present results from follow-up VERITAS observations of 28 muon neutrino events detected by IceCube with energies above 100 TeV. No gamma-ray excess was detected at the locations of the neutrino events so gamma-ray flux upper limits were calculated. We will discuss how these results correlate to the all-sky neutrino flux.

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