

Abstract Submitted  
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**Constraints on astrophysical interpretations of anomalous ANITA events with IceCube** ALEX PIZZUTO, University of Wisconsin - Madison, ICECUBE COLLABORATION COLLABORATION — Recently, the ANITA collaboration reported the detection of several events potentially consistent with neutrino interpretations. Two of these events are from upward-going extensive air showers, compatible with the signature of tau decay from an ultra-high energy tau neutrino interaction. A third, although consistent with background expectations, was detected in a search for Askaryan radiation. The steep emergence angles of the first two events is in tension with limits on isotropic cosmogenic neutrino fluxes. Here, we consider the hypothesis that these events are from neutrinos produced in the vicinity of cosmic accelerators, and search for coincident neutrinos with IceCube. In the absence of a significant detection, we set upper limits on neutrino fluxes from potential point sources. As any ultra-high-energy tau neutrino flux traversing the Earth should be accompanied by neutrinos in the TeV-PeV range, this non-observation severely constrains any standard model astrophysical interpretation of the ANITA events, regardless of the assumptions on intrinsic spectrum or time profile.

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