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An Observational Limit on the Ultra-High-Energy Cosmic Neutrino Flux from the Second Flight of the ANITA Experiment

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The ANtarctic Impulsive Transient Antenna (ANITA) is a balloon borne antenna array designed to detect coherent radio Cherenkov radiation produced by ultra-high-energy neutrinos (UHE, $E > 10^{18} eV$) interacting in the Antarctic ice sheet. ANITA completed its second science flight in the Austral Summer of 2008-09, launching on 21st December and recording over 20 million RF induced triggers during 30 days aloft. Improvements in sensitivity, along with increased time over deep ice, compared to the first flight of ANITA allow for the most sensitive investigation into the UHE neutrino flux to date. I will talk about the analysis of data taken during the 2nd flight, discuss analysis techniques used and present recent results.

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