

Abstract Submitted  
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**Analysis of Antarctic Surface Reflectivity for Reconstruction of Neutrino and Cosmic Ray Air Shower Events** JESSICA STOCKHAM, University of Kansas, ANITA COLLABORATION — The ANITA experiment is designed to detect signals from neutrinos passing through the Antarctic ice sheet. Subsequent to the the ANITA II 2008-2009 flight, analysis showed the detection of cosmic ray air shower events. Events were detected directly and as reflections from the ice surface. The reconstruction of both neutrino and air shower events requires analysis and modeling of the transmission and reflection properties of the air-ice interface. Using data obtained during the ANITA II 2008-2009 flight, reflectivity of the Antarctic ice is analyzed. Direct and reflected solar intensities are compared as a function of frequency to assess specularly in reflection. Expected reflection intensities given by Fresnel coefficients are used to correct the observed intensities for viewing angle.

Jessica Stockham  
University of Kansas

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