

Abstract Submitted
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Performance study of Cascade Reconstruction at the Glashow Resonance in IceCube¹ HANS NIEDERHAUSEN, Stony Brook University, ICE-CUBE COLLABORATION — The IceCube observatory is a 1 km³ neutrino detector located at the South Pole. Of particular interest are electromagnetic and/or hadronic particle showers (cascades) induced by electron anti-neutrinos that scatter off atomic electrons in ice, the so-called Glashow Resonance, i.e. W^- production at $E_\nu = 6.3$ PeV. We present performance studies of likelihood based cascade reconstruction algorithms using Monte Carlo simulations and demonstrate IceCube's capabilities to reconstruct position, direction and the energy of cascades from the in-situ laser light sources in this energy regime.

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