

Abstract Submitted
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Simulating Cosmic Ray Arrays with LEDs and Other Ideas for Bringing IceCube Science to the Classroom JAMES MADSEN, University of Wisconsin-River Falls, JONATHAN EISCH, MARK KRASBERG, University of Wisconsin-Madison, ICECUBE COLLABORATION — Bringing cosmic rays to the classroom can be a challenging task, but the IceCube Neutrino Observatory and the corresponding surface array called IceTop provide the context and data to do it. Located at the South Pole, IceCube consists of 86 strings of Cherenkov light detectors in a cubic kilometer of ice along with the IceTop surface array, consisting of 81 stations of ice-Cherenkov tanks spread over a square kilometer. An overview of IceCube capabilities, possibilities for making data publicly available for student use, and an activity to help students explore how cosmic rays are detected with IceTop using computer-controlled LEDs to visualize the surface data will be presented.

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