

Abstract Submitted
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Cosmic-Ray Observations with HAWC30¹ DANIEL FIORINO, University of Wisconsin-Madison — The High-Altitude Water Cherenkov (HAWC) Observatory is a TeV gamma-ray and cosmic-ray detector currently under construction at an altitude of 4100 meters on the slope of Volcán Sierra Negra near Puebla, Mexico. HAWC is an extensive air-shower array comprising 300 optically-isolated water Cherenkov detectors. Each detector contains 200,000 liters of filtered water and four upward-facing photomultiplier tubes. Since September 2012, 30 water Cherenkov detectors have been instrumented and operated in data acquisition. With 10 percent of the detector complete and six months of operation, the event statistics are already sufficient to perform detailed studies of cosmic rays observed at the site. We will report on cosmic-ray observations with HAWC30, in particular the detection and study of the shadow of the moon. From these observations, we infer the pointing accuracy of the detector and our angular resolution of the detector reconstruction.

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Daniel Fiorino
University of Wisconsin-Madison

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