Cosmic-Ray Anisotropy with the HAWC Observatory

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The High-Altitude Water Cherenkov (HAWC) Observatory is a TeV gamma-ray and cosmic-ray detector operating at an altitude of 4100 meters in Mexico. HAWC is an extensive air-shower array comprising 300 optically-isolated water Cherenkov detectors. While the observatory is only partially deployed, with 100 Cherenkov detectors in data acquisition since summer 2013, statistics are already sufficient to perform studies of cosmic-ray anisotropy. We discuss the status and performance of the detector, including the pointing accuracy and angular resolution as inferred from the observation of the moon shadow and simulations, and present first results on small-scale cosmic-ray anisotropy.

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