

Abstract Submitted
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HAWC: The Future of Wide-Field TeV Gamma-Ray Astrophysics

JOHN PRETZ, Los Alamos National Lab — The High Altitude Water Cherenkov (HAWC) detector is an extensive air shower array to be constructed in Sierra Negra, Mexico. Since typical TeV gamma-ray sources are extended or variable, an all-sky instrument is necessary to perform an unbiased survey of the VHE sky. HAWC builds on the pioneering work of the Milagro experiment and represents more than order of magnitude improvement over Milagro at a moderate cost. Combining a 22000 square meter instrumented area with a 4100-meter high-altitude site, HAWC will be the most sensitive wide-field TeV gamma-ray instrument in the world. I will present the design and performance of the detector in the context of the science objectives of the collaboration.

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