

Abstract Submitted
for the APR18 Meeting of
The American Physical Society

All-Sky Dark Matter Annihilation Limits with HAWC JOSEPH LUNDEEN, Michigan State Univ, HAWC COLLABORATION — The High Altitude Water Cherenkov Observatory (HAWC) is a high energy (500 GeV to 100 TeV) gamma ray detector located in southern Mexico. HAWC operates via the water Cherenkov technique and has both a wide (2 sr) field of view and near continuous duty cycle, making it ideal for unbiased sky surveys. We use the HAWC 2HWC catalog from 507 days of observations to perform such a search for dark matter annihilation signals in the observed HAWC sky. We perform both a targeted search of HAWC sources which have no known association with lower-energy counterparts as well as an unbiased search of the entire sky. We use these results to set upper limits on dark matter annihilation across the sky.

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Date submitted: 11 Jan 2018

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