

Abstract Submitted
for the APR18 Meeting of
The American Physical Society

PeVatron candidates in the first 30 months of HAWC data KELLY MALONE, Pennsylvania State Univ, HAWC COLLABORATION — Galactic cosmic rays are observed at PeV energies, so at least a few sources that accelerate to these energies are expected to exist. However, only one such source has been identified: the Galactic Center. Since one of the signatures of a PeVatron is a hadronic, hard spectrum that extends without any apparent spectral cutoff, high-energy (> 50 TeV) gamma-ray observations are important in identifying and studying PeVatron candidates. The High Altitude Water Cherenkov (HAWC) Observatory, located at 4100 m in Puebla, Mexico, has sensitivity to gamma rays at these previously largely unexplored energies. With an instantaneous field of view of $\sim 2\text{sr}$ and a duty cycle $> 95\%$, it is well suited to performing all-sky surveys. I will discuss high-energy sources seen in the Galactic plane in the first 30 months of data from HAWC and discuss which ones may be identified as PeVatron candidates. I will also briefly discuss the energy estimation method used by HAWC.

Kelly Malone
Pennsylvania State Univ

Date submitted: 11 Jan 2018

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