

Constraining the TeV Gamma-Ray Sky with HAWC

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The High Altitude Water Cherenkov (HAWC) gamma-ray observatory is a wide field-of-view observatory sensitive to 100 GeV – 100 TeV gamma rays and cosmic rays. Located at an elevation of 4100 m on the Sierra Negra volcano in Mexico, HAWC observes extensive air showers from gamma rays via their production of Cherenkov light within an array of water tanks. Through its detection of high-energy gamma rays, the HAWC observatory is sensitive to a wide variety of astrophysical sources, including active galactic nuclei, pulsar wind nebulae, and galactic diffuse emission. HAWC's high energy reach, wide field of view, and high uptime also enable searches for gamma-ray bursts and signatures of dark matter. These also enable HAWC to perform gamma-ray follow-up observations of discoveries with other messengers, including gravitational waves and neutrinos.

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