

HAWC: A New View of the Very High Energy Sky

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The High Altitude Water Cherenkov (HAWC) Observatory has been fully operational since its inauguration on 20 March 2015. HAWC opens a new window for survey observations of gamma rays and cosmic rays in the very high energy (VHE) range from 100 GeV to 100 TeV, facilitating studies of Galactic and extragalactic particle accelerators, indirect dark matter searches, gamma-ray bursts, and many other topics. With its large field of view of ~ 2 sr and high duty cycle of >95 percent, HAWC surveys $2/3$ of the entire sky every day, making it an ideal instrument to search for both new sources and transient activity in the VHE band. In this talk, I will discuss the results from HAWC's first year of data, highlighting several new Galactic sources and demonstrating the capability of HAWC to identify VHE transients. I will also summarize the dark matter and gamma-ray burst searches and highlight the unique collaborative opportunities that HAWC provides for advancing our understanding of the very high energy universe.

Summary

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