

# The High Altitude Water Cherenkov Observatory

*Wednesday 28 August 2013 10:00 (30 minutes)*

The High Altitude Water Cherenkov (HAWC) observatory, under construction in Central Mexico at an altitude of 4,100m, will consist of 300 large light-tight water tanks instrumented with photomultiplier tubes. Ground level particles produced by gamma rays and cosmic rays that collide with the upper atmosphere are detected with these tanks. HAWC differentiates gamma-ray and cosmic-ray primaries by identifying muons as a part of the air showers. HAWC will be a prime survey instrument in the 100 GeV - 100 TeV energy range with 2 sr instantaneous field of view and >95% duty cycle. In this presentation I will discuss construction and operation status and preliminary results on the observation of the moon's and sun's shadow with cosmic rays as well as the Crab nebula. I will also summarize prospects for detections of supernovae remnants, diffuse galactic sources, active galactic nuclei, gamma-ray bursts, etc.

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**Session Classification:** Plenary