



Contribution ID: 251

Type: **Presentation**

## The current status of the HAWC observatory

*Monday, June 23, 2014 2:30 PM (20 minutes)*

The High Altitude Water Cherenkov (HAWC) observatory is an extensive air shower (EAS) detector currently under construction in central Mexico at an altitude of 4,100 m above sea level. It improves the water Cherenkov technique, where gamma rays in the 100 GeV - 100 TeV range are detected by measuring Cherenkov light from secondary particles, by having an order of magnitude better sensitivity, angular resolution and background rejection than its predecessor, the Milagro experiment. HAWC is the most sensitive wide field of view ( $\approx 2$  sr instantaneous field of view) and continuously operating ( $>95$  % duty cycle) TeV gamma-ray observatory ever constructed. In this presentation I will discuss the construction and operation status of HAWC and a sky map from the first few months of HAWC observations, including the Crab nebula, Mrk 421, Mrk 501, the complex Cygnus region and other extended TeV objects with unidentified source associations.

**Primary author:** LENNARZ, Dirk (Georgia Tech)

**Co-author:** FOR THE, HAWC collaboration (HAWC collaboration)

**Presenter:** LENNARZ, Dirk (Georgia Tech)

**Session Classification:** Gamma-Ray Astrophysics

**Track Classification:** Gamma-Ray Astrophysics