



Contribution ID: 239

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## Results from monitoring TeV blazars with HAWC

*Wednesday, 5 August 2015 12:00 (15 minutes)*

The recently completed High Altitude Water Cherenkov (HAWC) gamma-ray observatory has been taking data in a partial configuration with >95% duty cycle for more than one year. With an instantaneous field of view of 2 sr, two-thirds of the sky is surveyed every day at gamma-ray energies between 100 GeV and 100 TeV. Any source location in the field of view can be monitored each day, with an exposure of up to ~6 hours and a sensitivity of ~1 Crab for sources that transit near zenith. These unprecedented observational capabilities allow us to continuously scan the highly variable extra-galactic gamma-ray sky. Monitoring the flaring states of Active Galactic Nuclei will significantly increase the data base for characterizing particle acceleration mechanisms and cosmological parameters like the extra-galactic background light. We will present first studies of over 1 year of light curve data from bright TeV blazars like Markarian 421 and 501, providing a first look at the frequency of flaring states and highlighting coincident multi-wavelength observations. We will also discuss the status of performing analyses such as a daily flare search immediately after data taking, with the potential to quickly alert other observatories in case of flare detections.

### Collaboration

HAWC

### Registration number following "ICRC2015-I"

257

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