

## ABSTRACT ONLY

### SEARCH FOR PERIODIC MODULATION IN GAMMA-RAY EMISSIONS AT TEV ENERGIES FROM BLAZARS WITH HAWC

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Blazars are known for having an erratic variability in all wavelengths on a wide range of timescales. Ground instruments, like Imaging Air Cherenkov Telescopes (IACTs), have observed several blazars at TeV energies in states of high activity. However, a continuous monitoring, necessary for a complete analysis of their light curves at these energies, in high and quiescent states, have been impossible due to the low duty cycle of these instruments ( $<10\%$ ) and the limited observation time dedicated to these sources. The High Altitude Water Cherenkov (HAWC) observatory was designed for the detection of gamma rays with energies between 100 GeV and 100 TeV. It has a wide instantaneous field of view of 2 sr and a duty cycle  $>95\%$ , which allows to scan  $2/3$  of the sky every day. These capabilities make HAWC an ideal instrument for monitoring the variability of blazars at TeV energies, like Markarian 421 and Markarian 501. In this contribution we will present a study of the light curves from these sources using time series analysis techniques, searching for possible periodic modulation.

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