

## EBL study with HAWC observations of high-emission states of Mrk 421

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Emission of TeV gamma rays from high-emission states of nearby Active Galactic Nuclei (AGNs) can be used to put constraints on the photon density of the Extragalactic Background Light (EBL) in a region where there are not direct measurements of this background radiation field. Using HAWC observations of the AGN Mrk 421 after 10 years of data, we show preliminary evidence of the existence of two different emission states and their associated spectrum. Additionally, we show preparatory constraints on the EBL photon intensity around 1 TeV.

### Collaboration you are representing

HAWC

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