Monitoring the radio galaxy M87 with HAWC

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Studies of radio galaxies at TeV energies are of particular interest because their jets are misaligned with respect to our sightline. This provides us with a unique opportunity for studying the structure of their jets, the radiative processes, and the acceleration mechanisms involved in them. Some radio galaxies have presented variability in their emission, like the giant radio galaxy M87, which has reported several activity periods. Due to its duty cycle > 95% and instantaneous field of view of 2 sr, HAWC is providing daily monitoring of variable sources visible from the Northern Hemisphere. In this work, we show the results of monitoring M87 between January 2015 and December 2019. HAWC's observation are consistent with the low acivity state reported by other instruments (like H.E.S.S and MAGIC). However, after September 2017 (~MJD 58000), the HAWC measurements of M87 show hints of higher activity.

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