

# Monitoring the radio galaxy M87 with HAWC

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In this poster, we report the monitoring of radio galaxy M87 over three years (see Figure 1). This source is a type of AGN with the particular characteristic that its jet is launched at large

inclination our line-of-sight. It allow to study the AGN from another perspective, that is, we can observe all structure (nuclei, jet and giant lobes). This kind of source is not expected to observe at gamma-ray regimens. However, 30 sources have been reported at MeV regimen, and only 6 of them with emission at TeV.

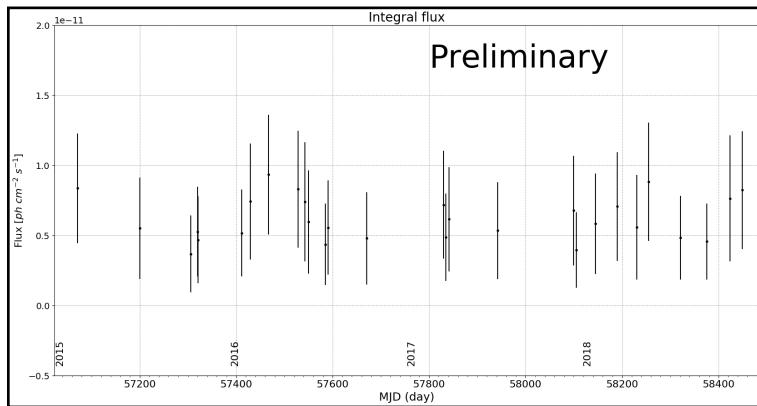


Figure 1: Daily light curve of M87 from January 1st 2015 (MJD 57023) to December 8th 2018 (MJD 58460). Here only are shown all days with a significance greater than 2.

The monitoring of M87 for several TeV observatories (like MAGIC, Veritas, or HESS) has reported

three periods of flaring state (2005, 2008, and 2010) and two of high activity in 2004 and 2012. After 2010, M87 has been in a quiescent state. In this poster, we show observations of M87 with the HAWC Observatory.

Over a period of 4 years, the results show that M87 is consistent with the lowest flux activity observed in this radio galaxy. We also observe a hint, after September 2017, that M87 begin of activity (see Figure 2).

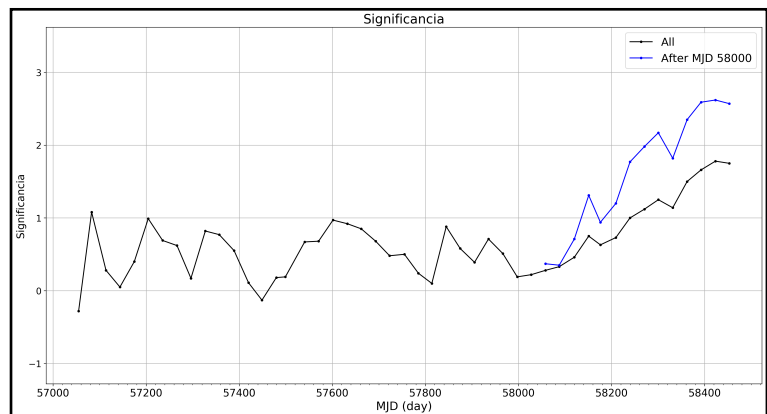


Figure 2: Cumulative significance is shown by adding month-by-month data from January 2015 (MJD 57023) to December 2018 (MJD 58560). After September 2017 (MJD 58000), the significance starts to increase