



Contribution ID: 255

Type: **Parallel Contributed Talk**

MAGIC and MWL monitoring of the blazar TXS 0506+056 in the 2017/2019 season

Thursday, February 25, 2021 10:20 AM (20 minutes)

The gamma-ray blazar TXS 0506+056 was discovered in very high energy (>100 GeV) gamma-rays by the MAGIC telescopes in 2017 in a coincidence with a high energy neutrino event IC-170922A. Subsequent multi-wavelength (MWL) observations and theoretical modeling suggest that this source could be a cosmic ray and neutrino emitter. So far, this is the most significant association between a high-energy neutrino and an astrophysical source emitting gamma rays and X-rays. Through accurate and contemporaneous MWL spectral measurements of TXS 0506+056, we can test the connection between the high-energy neutrinos and blazars. We present the light curves and simultaneous spectral energy distributions from the MAGIC and MWL monitoring of this source, from November 2017 till February 2019, together with the theoretical interpretation of these observations. We discuss their implications on cosmic-ray accelerations in AGN and on the physics of relativistic jets from supermassive black holes.

Collaboration name

MAGIC

Primary authors: CERRUTI, Matteo (CNRS / LPNHE); D'AMMANDO, Filippo (INAF - IRA Bologna); Dr PRANDINI, Elisa (University of Padova and INFN); SAHAKYAN, Narek (National Academy of Sciences of the Republic of Armenia and ICRA Net); Dr RIGHI, Chiara (Osservatorio Astronomico di Brera)

Co-author: SATALECKA, Konstancja (DESY)

Presenter: D'AMMANDO, Filippo (INAF - IRA Bologna)

Session Classification: Multimessenger Investigations

Track Classification: Neutrino Telescopes and Multimessenger