Contribution ID: **545** Type: **Talk**

The variability patterns of PG 1553+113: a MAGIC perspective

Thursday 15 July 2021 13:00 (12 minutes)

PG1553+113 is one of the few blazars with a convincing quasi-periodic emission in the gamma-ray band detected by the Fermi-LAT satellite. The source is also a very high-energy (>100 GeV) gamma-ray emitter. The MAGIC collaboration started a multi-year, multi-wavelength monitoring campaign of PG 1553+113 in 2015 involving several instruments in the radio, infra-red, optical photometry and polarimetry, UV, and soft X-ray bands. The purpose of the campaign is to characterise the properties of its broadband emission, in particular the variability at different timescales and energies, with the ultimate goal of pinpointing the physical processes at work in the jet driving the emission variability. In this contribution the main results of the campaign will be presented with a particular emphasis on the multi-year light curve from MAGIC and its connection to the periodicity seen in gamma rays by Fermi-LAT and, possibly, in the optical waveband, too.

Keywords

Blazar; gamma rays; multi-wavelength; periodicity; MAGIC; IACT; extra-galactic

Collaboration

MAGIC

other Collaboration

Subcategory

Experimental Results

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Session Classification: Discussion

Track Classification: Scientific Field: GAI | Gamma Ray Indirect