

Multiwavelength monitoring of gravitationally lensed blazar QSO B0218+357 between 2016 and 2020

Thursday, April 15, 2021 6:31 PM (3 minutes)

QSO B0218+357 is currently the only gravitationally lensed source from which both high-energy (HE, >100 MeV) and very-high-energy (VHE, >100 GeV) gamma-ray emission has been detected.

We report the Fermi/LAT and multiwavelength monitoring observations of this source in radio interferometry, optical and X-rays performed between 2016 and 2020. During the monitoring, individual flares in the optical, X-ray and HE bands were observed.

We analysed the MAGIC telescopes data during the flaring states to search for the associated VHE emission, constraining the VHE gamma-ray duty cycle of the source.

We model the quiescent emission in which the high-energy bump is explained as a combination of Synchrotron-Self-Compton and External Compton processes. The bulk of the low-energy emission is explained as originating from a tens of parsecs scale jet.

Primary author: LONGO, Francesco

Presenter: LONGO, Francesco

Session Classification: AGN-2

Track Classification: AGN