

1ES 0647+250: 10 years of multiwavelength observations

Monday, 4 July 2022 16:00 (15 minutes)

The High-peaked BL Lac object 1ES 0647+250 is one of the few distant blazars detected at very-high-energy (VHE, $E > 100$ GeV) gamma rays during non-flaring activity. Its redshift is still uncertain, but a lower limit of $z > 0.29$ was recently calculated, based on the minimum equivalent width of absorption features expected from the host galaxy. This blazar was first detected by the MAGIC telescopes between 2009 and 2011 during its low state, displaying around 2% of the Crab Nebula flux above 100 GeV, but it has shown several periods of large activity, where the VHE gamma-ray flux increased by more than 1 order of magnitude. In this contribution, for the first time the detailed broadband spectral energy distribution (SED) will be presented for different activity levels. A long-term analysis of the variability displayed by this BL Lac object has been carried out using a rich MWL data sample extending more than 10 years. The long-term emission, variability and inter-band correlations have been evaluated. The spectral evolution will also be discussed and interpreted. The broadband emission was reproduced in the framework of different emission models for each activity level, studying the evolution of the physical parameters describing the emission of this source and the observed characteristics of its emission.

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Session Classification: Contributed Talks