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Exploring the activity of extreme Blazars and their observability through a neutrino telescope

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Among the various categories of Active Galactic Nuclei (AGN), Blazars are the most promising sources of TeV/PeV neutrinos, due to their high luminosity at very high-energy (VHE) range during the active periods. After the multi-wavelength observation of the TXS0506+056, with a extreme high energy (EHE) event of IceCube followed-up by a significant flaring emission registered by Fermi-LAT and MAGIC observatories, this hypothesis became even more solid. Here we present a sample of Bl-lacs and flat spectrum radio quasars (FSRQ), from the 3FHL and 3FGL catalogs, spatially connected with the high energy starting events (HESE) track-like type and EHE events, for the study of their variability as well as the luminosity during their flaring activity. A specific focus is dedicated to the extreme Blazar TXS0506+056 with the analysis of the HE duty cycle and the spectral energy distribution (SED) features. The variability and the luminosity of these extreme sources are then correlated, through a hadronic emission process, with the possibility to observe them with a VHE neutrino telescope.

Are you presenting on behalf of collaborations or institutions?

no

Summary

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