

Gamma-ray bright AGN: a decade of joint MOJAVE-Fermi monitoring

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Within the MOJAVE VLBA program (Monitoring of Jets in AGN with VLBA Experiments) we accumulated observational data at 15 GHz for hundreds of gamma-ray bright active galactic nuclei jets since the beginning of the Fermi observations. We investigated a time delay between flux density of AGN parsec-scale radio emission at 15 GHz and 0.1-100 GeV Fermi LAT photon flux, taken from constructed light curves using weekly and adaptive binning. The correlation analysis based on the ZDCF shows that radio is lagging gamma-ray radiation by up to a few months in the observer's frame, while in the source frame the typical delay is about one month. If the jet radio emission excluding the opaque core is considered, no significant correlation is found. This, along with the estimation of the distance between the radio and the gamma-ray emission regions obtained from the kinematics data, strongly suggests that the dominant high-energy production zone is typically located at a distance of several parsecs from the central nucleus.

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