



Dichotomy between Gamma-Ray Detected and Non-Detected Blazars

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Message from the Guest Editor

Dear Colleagues,

A major discovery by space- and ground-based gamma-ray telescopes is the discovery of high-energy emission from several thousands of blazars—active galaxies having their relativistic jets pointed closer to our line of sight. However, a sizable population of known blazars are still missing their gamma-ray counterpart, which leads to an unexplored dichotomy of gamma-ray detected (or gamma-ray loud) and gamma-ray non-detected (or gamma-ray quiet) blazars. Interestingly, gamma-ray detected and gamma-ray non-detected blazars have similar redshift distribution and are similar in their radio, optical, and X-ray flux distributions, with gamma-ray detected sources being slightly brighter on average in all bands. However, radio and optical polarization studies for a smaller sample of sources provide some hints in favor of the two sub-classes of objects being intrinsically different. This leads to an unexplored dichotomy of gamma-ray detected and non-detected blazars, which might provide some interesting clues about the favorable environments for the acceleration of relativistic particles to GeV/TeV energies.

Dr. Bindu Rani

Guest Editor





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