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Investigating high-energy neutrinos from blazars with an analysis of the IceCube observatory data

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In the past decade, the IceCube observatory has established the presence of a diffuse flux of high-energy neutrinos (≥ 100 TeV to 10 PeV) that is consistent with an astrophysical origin. However, the population of sources responsible for this flux remains largely unknown.

Among the candidate sources of neutrinos, blazars have been suggested as promising emitters of the high-energy events detected by IceCube. A recent study has provided evidence of a statistically significant spatial correlation between blazars from the 5th Roma-BZCat catalog (5BZCat) and the IceCube data. In this contribution, we explore the findings from a complementary approach.

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