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Searching for Counterparts to Cosmic Neutrinos Using the Fermi LAT Satellite

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We present the results of an archival coincidence analysis between public gamma-ray data from the Fermi LAT satellite and public neutrino data from the IceCube neutrino observatory during its 40-string and 59-string observing runs. The analysis has the potential to detect either a statistical excess of correlated neutrino + gamma-emitting sources or alternatively, one or more rare, high-multiplicity events such as gamma-ray burst + neutrino coincidences. This work is an example of the multimessenger studies currently being performed by the Astrophysical Multimessenger Observatory Network (AMON). We will present the relevant datasets, the statistical approach, and the results of the analysis.

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