

Searching for millisecond pulsar near the Galactic center

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Excess of gamma rays with a spherical morphology around the Galactic center (GC) at GeV energies observed in the Fermi-LAT data is one of the most intriguing features in the gamma-ray sky as it is consistent with annihilation of dark matter particles. Astrophysical explanations include a population of millisecond pulsars (MSPs). We use machine learning algorithms to search for MSP candidates among unassociated Fermi-LAT sources near the GC. A search for radio counterparts of the MSP candidates may confirm or disprove the MSP nature of the Galactic center GeV excess.

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