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The Second Fermi-LAT-low-energy catalog (2FLE)

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The Fermi Large Area Telescope (Fermi-LAT) has been continuously observing the sky from 20 MeV to 1 TeV for more than 15 years. Although Fermi-LAT's sensitivity reaches down to 20 MeV, its low-energy range has been largely left under-explored. As we await an all-sky MeV mission such as COSI, it is now the prime time to capitalize on the full capabilities of Fermi-LAT. To complement and improve on the first Fermi-LAT low-energy catalog (1FLE), we have developed a specialized analysis using 14 years of the LAT data with the best angular reconstruction (Pass8 PSF3) to construct a sensitive catalog of point sources between 20-200 MeV. This program will start bridging the gap between the MeV and GeV energy bands, strongly enhancing the legacy of the Fermi mission and supporting the scientific case for future all-sky MeV missions.

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