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2FHL: The second Catalog of Hard Fermi-LAT Sources

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The Fermi Large Area Telescope (LAT) has been routinely gathering science data since August 2008, surveying the full sky every three hours. The first Fermi-LAT catalog of sources detected above 10 GeV (1FHL) relied on three years of data to characterize the >10 GeV sky. The improved acceptance and point-spread function of the new Pass 8 event reconstruction and classification together with six years of observations now available allow the detection and characterization of sources directly above 50 GeV. This closes the gap between ground-based Cherenkov telescopes, which have excellent sensitivity but small fields of view and duty cycles, and all-sky observations at GeV energies from space. In this contribution we will present the second catalog of hard Fermi-LAT sources detected at >50 GeV. We will discuss the properties of the extragalactic and Galactic source populations with an emphasis on the detection of spatially extended sources in the plane of our Galaxy.

Collaboration

FERMI

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