

The Fermi Large Area Telescope View of Gamma-ray Pulsars

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Talk: The Fermi Large Area Telescope View of Gamma-ray Pulsars

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Abstract:

Observations with the Fermi Large Area Telescope (LAT) have revolutionized gamma-ray pulsar science. The second LAT catalog of gamma-ray pulsars details spectral and light-curve characteristics of 117 rotation-powered pulsars observed above 0.1 GeV. The gamma-ray pulsar populations is split almost equally into three populations, young radio-loud, young radio-quiet, and millisecond pulsars. Additionally, significant pulsations are seen from 28 pulsars above 10 GeV, raising the possibility of additional or alternate emission mechanisms. We will summarize the trends in gamma-ray pulsar properties, discuss comparisons with information at other wavelengths, and detail how targeted searches of unassociated LAT sources are adding to pulsar timing arrays aimed at gravitational wave detection. Portions of this research performed at the Naval Research Lab are sponsored by NASA DPR S-15633-Y.

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