

Special Issue

Observations of Gamma-Ray Pulsars

Message from the Guest Editor

The NASA's Fermi Gamma-ray Space Telescope marked a revolution in pulsar gamma-ray astronomy, having detected now more than 200 pulsars in gamma-rays, compared with the seven known before its launch in June 2008. About a quarter of the total have been discovered in gamma-rays and they are still lacking a radio detection and, quite unexpectedly, about half of the total are Gyr-old millisecond pulsars, which are a few orders of magnitude less energetic than the bulk of the young pulsar population. It is now clear that this wealth of detections provides us with an unprecedentedly large and diverse sample to start characterising the pulsar spectra from the gamma rays to the optical, and understand how the complex radiation processes in pulsar magnetospheres work, which is key to understand the behaviour of relativistic particles and radiation under extreme magnetic fields. The goals of this Special Issue are to set the state of the art after ten years of pulsar observations by Fermi, present the results of their multi-wavelength follow-ups and how this helped to understand the pulsar emission physics, and outline the research plans for the next few years.

Guest Editor

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Message from the Editorial Board

Galaxies provides an advanced forum for studies related to astronomy, astrophysics, and cosmology, including all of their subfields. Different formats, such as specialized research articles, reviews, communications and technical notes are welcomed. Manuscripts containing original and creative research proposals and ideas are especially appreciated.

We encourage scientists to publish their astronomical observations and theoretical results in as much detail as possible. There is no restriction on the paper length and full experimental and methodological details, as applicable, should be provided. All papers will be peer reviewed promptly. On behalf of the distinguished members of the editorial board, I extend my welcome to all researchers working on these subjects to contribute to *Galaxies*.

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