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Detection Limits for a GLAST Pulsar Blind Search Using a Time-Differencing Technique

Abstract content

The Large Area Telescope (LAT) on the Gamma-ray Large Area Space Telescope (GLAST) will have unprecedented sensitivity to gamma-ray sources. The significantly improved signal-to-noise performance of GLAST relative to previous missions greatly enhances the prospects of blind searches for radio-quiet gamma-ray pulsars. We describe our search procedures, which are based on a novel time-differencing technique. From the results of searches performed on simulated GLAST data, we present detection limits for a pulsar blind search, including studies of the dependence of the detection power on the observation time, the pulsar flux above background, and the timing characteristics of the pulsar.

If this papers is presented for a collaboration, please specify the collaboration

GLAST LAT Collaboration

Summary

Reference

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