

FAST Proposal Cover Page

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Project Name:

FAST searches for millisecond pulsars in Fermi LAT unassociated sources from the 4FGL Catalog

Project Summary:

The Fermi Large Area Telescope (LAT), in orbit since 2008, has been discovering γ -ray pulsars at an almost constant rate of ~ 25 per year. Teaming up with all the major radio telescopes in the world, Fermi LAT team members formed the Pulsar Search Consortium bringing together the radio and γ -ray communities to jointly search for pulsars using the best resources from both sides. Targeted radio searches of pulsar-like Fermi LAT γ -ray sources have led to the discovery ~ 100 millisecond pulsars (MSPs), with most of these subsequently showing γ -ray pulses. *With the recent signing of an MOU between Fermi and FAST, we propose to use FAST to search for MSPs in the most promising pulsar-like γ -ray sources in the upcoming Fermi LAT 4FGL Catalog.*