

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 40 Hours

Proposal Title: Ultra-High Time Resolution Measurements of the Crab "Giant" Radio Pulses: Phase – The Interpulse

ABSTRACT:

Our recent 9 GHz observations of "giant pulses" from the Crab Nebula pulsar have revealed that the dynamic spectrum of the interpulse contains "bands" that are periodic in frequency, show an initial upward frequency drift, and continue for the full pulse duration of 2-4 microseconds. The dynamic spectrum of the rarer main pulses shows no similar structure. We propose to observe both the main and interpulse components of the Crab giant pulses at other frequencies in order to understand the origins and differences between these two pulse components.

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Service Observing Request

Remote Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

- No
- Maybe
- Yes

Instrument Setup

C X-high

Atmospheric Observation Instruments:

Description of Observer Equipment: New Mexico Tech Fast Sampling Sampling system

Special Equipment or setup: Mixer to convert 1-2 GHz IF down to 0-1 GHz. This mixer was used in 2003, but subsequently disappeared!

RFI Considerations

Frequency Ranges Planned