Proposal Identification No.: P2115 Date Received: 2005-Jun-01_23:45:27

Technical Page

Proposal Type:	Regular
General Category:	Pulsars
Observation Category:	Galactic
Total Time Requested:	12 Hours

Proposal Title: Possible Radius-to-Intensity Mapping and Mode Switching in PSR B0950+08

ABSTRACT:

We request 12 hours of telescope time for observations of a well-known pulsar, PSR B0950+08, in which we want to investigate whether its average profile at the same observing frequency represents different physical conditions at different emission heights. This is motivated by our recent findings of a significant intensity-dependence of the average profile, suggesting different emission heights as a possible explanation. The concept may be further supported by our finding that the average profile taken at 430 MHz is sometimes almost identical with the average profile of the weakest pulses taken at 1175 and 1475 MHz. In this mode emitting regions at lower and higher frequencies may overlap vertically. It is our aim to confirm and further investigate these results. We expect that our new results will contribute to estimates of the emission heights and have implications for better understanding of the geometry of this puzzling pulsar.

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Service Observing Request

- [ ] None
- [ ] All of the observing run.
- [X] Part of the observing run.
- [ ] Queue Observing

Remot e Observing Request

- [X] No
- [ ] Maybe
- [ ] Yes

Instrument Setup

430 G L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1200 - 1680
422 - 442

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..

This proposal requires coordination with GPS L3 at 1381 MHz.