

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 9 Hours

Proposal Title: Profile Instabilities in PSR J1022+1001

ABSTRACT:

The millisecond pulsar, PSR J1022+1001, shows significant profile instabilities as a function of radio frequency and time. This cannot be explained by profile mode changing that has been observed in several other pulsars. The average polarisation characteristics of this pulsar seems to suggest a deep connection between the profile instabilities and polarisation behaviour. We propose to observe PSR J1022+1001 in order to study its polarisation and profile characteristics at high time resolution.

Name	Institution	E-mail	Phone	Student
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Service Observing Request

Remote Observing Request

- | | |
|---|--|
| <input checked="" type="checkbox"/> None
<input type="checkbox"/> All of the observing run.
<input type="checkbox"/> Part of the observing run.
<input type="checkbox"/> Queue Observing | <input type="checkbox"/> No
<input checked="" type="checkbox"/> Maybe
<input type="checkbox"/> Yes |
|---|--|

Instrument Setup

L-narrow

Atmospheric Observation Instruments:

Special Equipment or setup: We propose to use WAPP system for our observations. We also will have access to the ASP system (Arecibo Signal Processor) that is going to be installed at the observatory in April. We have all the required software for processing and analysis, and all of them have been developed by us.

RFI Considerations

Frequency Ranges Planned

A bandwidth of 100 MHz in
the 21cm band (L-narrow)

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

This proposal requires coordination with GPS L3 at 1381 MHz.