

Technical Page

This proposal has not been submitted before.

Proposal Type: Short
 General Category: Pulsars
 Observation Category: Galactic
 Total Time Requested: 3 Hours
 Minimum Useful Time: 1 hr

Proposal Title: Finding the pulsar in supernova remnant G53.4+0.05

ABSTRACT:

We have discovered a new supernova remnant (SNR) using LOFAR. G53.4+0.05, has a shell-like morphology, a negative spectral index and associated thermal X-ray emission. We propose to use Arecibo to search for a young pulsar associated with G53.4+0.05. Such a pulsar would be a powerful probe of the SNR itself, and would also provide valuable insights into the preceding supernova explosion, and the birth of the neutron star. NB: these observations will serve both a MSc and PhD thesis (Driessen and Domcek)

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Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: No special requirements. We will use ALFA + Mock spectrometers in a standard pulsar search mode (similar to PALFA setup).

RFI Considerations

Frequency Ranges Planned

1214 - 1536

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

This proposal requires coordination with GPS L3 at 1381 MHz.