

## Technical Page

Proposal Type: Regular  
 General Category: Pulsars  
 Observation Category:  
 Total Time Requested: 30 Hours  
 Minimum Useful Time: 2 hours

**Proposal Title:** Broadband observations of pulsar dynamic spectra

**ABSTRACT:**

We propose high time resolution, broadband observations of four bright pulsars. In previous observations of the Crab pulsar, we found striking and unexpected *intrinsic* differences in the dynamic spectrum of the main pulse and the interpulse. The time and spectral signatures of the main pulse are consistent with one proposed model of pulsar radio emission; those of the interpulse cannot be explained by any current model. Our proposed observations will determine whether the dynamic spectra of other, more “normal” pulsars resemble either type of spectrum we found in the Crab pulsar

| Name             | Institution     | E-mail            | Phone          | Student |
|------------------|-----------------|-------------------|----------------|---------|
| James L Sheckard | New Mexico Tech | jsheckar@nrao.edu | (505)-835-7246 | G       |

### Remote Observing Request

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

### Instrument Setup

S-low   C                    S-high

### Atmospheric Observation Instruments:

**Description of Observer Equipment:** The New Mexico Tech Fast Pulsar Data Acquisition System, currently installed at the Observatory.

**Special Equipment or setup:** none

### RFI Considerations

## Frequency Ranges Planned

2000-2400

3400-3900

4000-5200