

## Technical Page

Proposal Type: Regular  
 General Category: Pulsars  
 Sub-Category: Spectroscopy  
 Observation Category: Galactic  
 Total Time Requested: 23 Hours

**Proposal Title:** Recombination line measurements toward PSRs B1849+00 and B1853+01  
**ABSTRACT:**

We wish to initiate a new tool for studies of the ionized ISM–radio recombination line (RRL) spectroscopy in the direction of pulsars. We propose to search for radio recombination lines in the directions of PSR B1849+00, whose line of sight we have studied previously via HI and OH spectroscopy, and PSR B1853+01, which we have observed at HI and which lies in the heart of its SNR, W44. We will simultaneously investigate the medium along the lines of sight via normal recombination lines and with RRL emission stimulated by the pulsar signal. We request in total **23 hours** of Arecibo observing time.

Name	Institution	E-mail	Phone	Student
Snezana Stanimirovic	UC Berkeley	sstanimi@astro.berkeley.edu	510 642 3132	no

### Service Observing Request

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

### Remote Observing Request

- No
- Maybe
- Yes

### Instrument Setup

L-wide                      C    327

### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

### RFI Considerations

### Frequency Ranges Planned

321 – 333 MHz  
1350 – 1451 MHz  
4700 – 4900 MHz

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

This proposal requires coordination with GPS L3 at 1381 MHz.