

## Technical Page

Proposal Type: Regular  
 General Category: Astronomy  
 Sub-Category: Continuum  
 Observation Category: Galactic  
 Total Time Requested: 30 Hours

**Proposal Title:** Multi-frequency Continuum Mapping of SNR192.8-1.1

*ABSTRACT:*

At Arecibo, we recently observed faint, high velocity HI “wings” having velocities forbidden by Galactic rotation. Many of these are likely to be the shells of the oldest supernova remnants (SNRs), now too faint to be recognized in radio continuum. One area observed shows a filamentary HI distribution, containing an expanding (>70 km/s) HI shell lying on the periphery of the faint continuum shell, SNR192.8-1.1. Although SNR192.8-1.1 has been previously mapped in the continuum, most of the existing images lack sensitivity and/or resolution. Here we propose observing the total-intensity and polarized continuum emission from SNR192.8-1.1 and its surroundings at 430 MHz, L- and S-band, enabling the definitive study of its properties and parameters, including investigating the distributions of spectral index, rotation measure, and depolarization across the SNR. A search will also be made for weak continuum features associated with the other HI filamentary structures we have found within the field.

Name	Institution	E-mail	Phone	Student
Ji-hyun Kang	Seoul National University	kjh@astro.snu.ac.kr	82-2-880-6623	G

**Service Observing Request**

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

**Remote Observing Request**

- No
- Maybe
- Yes

**Instrument Setup**

430 G                      L-wide                      S-low

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

**RFI Considerations**

## Frequency Ranges Planned

420 - 440 MHz

1120 - 1700 MHz

2600 - 3000 MHzSNR

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.

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

This proposal requires coordination with GPS L3 at 1381 MHz.