

Technical Page

Proposal Type: Regular
 General Category: Planetary Radar
 Observation Category: Solar System
 Total Time Requested: 24 Hours

Proposal Title: Lunar surface studies via S-Band radar imagery and interferometry
ABSTRACT:

We are proposing additional high resolution (20m), multi-polarization and interferometric, Arecibo/GBT 13-cm radar studies of the Moon with the aim of: 1) studying two areas of pyroclastic deposits which are records of early volcanism on the Moon and are of interest for their potential mineral resources; 2) extending the wavelength coverage of “radar-dark halo” craters that have been studied under the Arecibo/GBT lunar P-Band observing program (PI Bruce Campbell); 3) obtaining a high spatial and height resolution digital elevation model (DEM) of the south polar region via “two pass” radar interferometry.

Name	Institution	E-mail	Phone	Student
Donald B Campbell	Cornell University	campbell@astro.cornell.edu	607 255 9580	no

Service Observing Request

Remote Observing Request

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

Instrument Setup

S-Band radar S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: None

RFI Considerations

Frequency Ranges Planned

2.38 GHz