

Technical Page

This proposal has been submitted before.

The previous proposal number is A3128.

Proposal Type: Regular
 General Category: Astronomy
 Observation Category: Solar System
 Total Time Requested: 17 Hours
 Minimum Useful Time: 3 hours

Proposal Title: Remote measurement of lunar heat flow from Earth-based radio astronomy
ABSTRACT:

Radio emissions from the Moon originate from heat in the upper meters of the lunar regolith. The depth of such thermal emissions depends on the composition and thermal properties of the regolith. By combining Arecibo and VLA radio observations at C, L, and P-band along with lunar thermal and compositional properties as derived by the Lunar Reconnaissance Orbiter, Lunar Prospector, and Chang'E 1 and 2 microwave radiometer, we aim to provide new constraints on the global geothermal heat flux of the Moon. This request is specifically for a total of 17 hours of C-band observations at Arecibo.

Name	Institution	E-mail	Phone	Student
Edgard G Rivera-Valentin	USRA/Lunar and Planetary Institute	ervalentin@usra.edu	281-486-2198	no

Remote Observing Request

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

Instrument Setup

C

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned