Technical Page

This proposal has been submitted before.

The previous proposal number is a2857.

Proposal Type: Regular
General Category: Astronomy
Sub-Category: Continuum
Observation Category: Galactic
Total Time Requested: 50 Hours
Minimum Useful Time: 2 hours

Proposal Title: A Multifrequency Search for Flaring Radio Emission from the HR 8799 Planetary System

ABSTRACT:
We propose to conduct an extensive, multifrequency search for radio flares from the HR 8799 system of 4 young, massive planets using the Arecibo radio telescope at 327, 1400, and 3500 MHz, and the Mock spectrometer. The proposal is motivated by our recent detections of radio flares from two T-dwarfs, which have similar temperatures to those of the HR 8799 planets. Detection of radio emission from exoplanets has a potential to significantly extend the experimental basis for studies of their physics, and detecting and characterizing exoplanetary fields would obviously inform the investigations of planetary habitability.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex Wolszczan</td>
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</tbody>
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Remote Observing Request

X Observer will travel to AO

☐ Remote Observing

☐ In Absentia (instructions to operator)

Instrument Setup

L-wide 327 S-high

Atmospheric Observation Instruments:
Special Equipment or setup: Need reinstallation of the s-band high receiver!

RFI Considerations

Frequency Ranges Planned