This proposal has not been submitted before.

Proposal Type: Urgent
General Category: Planetary Radar
Observation Category:
Total Time Requested: 3 Hours
Minimum Useful Time:

Proposal Title: Radar Observations of Recently Discovered Near-Earth Object 2020 HM4

ABSTRACT:
We request one 3-hour observing track (including transmitter warm-up time) on May 7th 2020, to observe the recently discovered near-Earth object (NEO) 2020 HM4. The closest approach will be on May 7th at a distance of 0.027 au. NEOs are high priorities of the NASA funded Planetary Radar Science group at the Arecibo Observatory (AO), and each year about 50 to 70 newly discovered NEOs are observed using the planetary radar system at AO. Usually not much is known about recently discovered NEOs, except for their orbital parameters. Radar observations allow to refine its orbit, helping us not to lose the object. In addition, radar also allows us to estimate its size, rotation state, and surface properties.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
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<td>787878-2612</td>
<td>no</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

S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations
Frequency Ranges Planned