Technical Page

This proposal has not been submitted before.

Proposal Type: Urgent  
General Category: Planetary Radar  
Sub-Category: Radar  
Observation Category: Solar System  
Total Time Requested: 3 Hours  
Minimum Useful Time: 1  

Proposal Title: Radar Observations of Recently Discovered Near-Earth Object 2018 XN  

ABSTRACT:  
We request one 3-hour observing track (including transmitter warm-up time) to observe recently discovered Near-Earth object 2018 XN. This target was discovered at Palomar Mountain on July 8, 2018, and will be within Arecibo's declination from January 10th to 15th 2019. This is the first opportunity to observe this asteroid with radar since its discovery. Each year about 40 to 60 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.

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<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<th>Phone</th>
<th>Student</th>
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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 radar  
- S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations
Frequency Ranges Planned