**Technical Page**

Proposal Type: Regular  
General Category: Planetary Radar  
Observation Category: Solar System  
Total Time Requested: 20 Hours

**Proposal Title:** Radar Observations of Asteroid 2100 Ra-Shalom

**ABSTRACT:**

We propose dual polarization radar imaging of near-Earth asteroid 2100 Ra-Shalom over five contiguous days with a ranging resolution as fine as 0.25 ms (38 m). Ra-Shalom is of importance for several reasons: (1) it may be linked with CV3 chondrites; (2) it is thought to have little or no surface regolith; (3) surface features are discernible in previously obtained radar images of coarser resolution; and (4) it is a candidate for a future spacecraft rendezvous. The data obtained will enable a three-dimensional shape reconstruction, constrain the rotational pole, provide imaging data at 40 m/pixel resolution, and serve as base for a campaign of near-simultaneous rotationally resolved spectral observations in the ultraviolet, visible, and near and thermal infrared.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
</tr>
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<tbody>
<tr>
<td>Michael K Shepard</td>
<td>Bloomsburg University</td>
<td><a href="mailto:mshepard@bloomu.edu">mshepard@bloomu.edu</a></td>
<td>570-389-4568</td>
<td>no</td>
</tr>
</tbody>
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**Service Observing Request**

- [X] None
- [ ] All of the observing run.
- [ ] Part of the observing run.
- [ ] Queue Observing

**Remote Observing Request**

- [X] No
- [ ] Maybe
- [ ] Yes

**Instrument Setup**

- S-Band radar
- S-band receiver

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** none

**RFI Considerations**

**Frequency Ranges Planned**