Technical Page

Proposal Type: Regular
General Category: Planetary Radar
Observation Category: Solar System
Total Time Requested: 32 Hours

Proposal Title: S-Band Bistatic Radar Observations of Titan in 1998

ABSTRACT:
We are proposing new observations to measure Titan’s radar cross section at a wavelength of 12.6 cm. Previous experiments at 3.5 cm wavelength by others have made cross section estimates ranging from 0.35 to below 0.14. The reflectivity has implications for surface composition, most interestingly for the existence of global liquid ethane oceans. The observing window is limited by the time of Saturn opposition and coordinating with the receive antenna, the Goldstone 70m.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>E-mail</th>
<th>Phone</th>
<th>Student</th>
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<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

Atmospheric Observation Instruments:

Description of Observer Equipment:

Special Equipment or setup: Special setup: Software needs: Media needs:

RFI Considerations

Frequency Ranges Planned
see proposal