This proposal has not been submitted before.

Proposal Type: Regular
General Category: Planetary Radar
Observation Category: Solar System
Total Time Requested: 59 Hours
Minimum Useful Time: 2 hrs

Proposal Title: Radio Spectroscopy and Radio Observations of Comet ISON and 2P/Encke (July - December 2013)

ABSTRACT:
We propose to observe Comet ISON and Comet Encke in fall 2013. We will attempt to detect each with radar, although the geocentric distance is at the limit of feasibility. We will observe OH lines for each in order to determine the outflow velocity, and water production rates. Comet ISON will be very bright and observable for a long time at Arecibo, and we plan to also look for formaldehyde and methanol at C-band (5 GHz). These observations are coordinated with the GBT and LMT.

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<tr>
<th>Name</th>
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<th>Student</th>
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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    L-wide    S-band receiver    C

Atmospheric Observation Instruments:

Special Equipment or setup: The radar dates are specified. Other dates are primarily L-wide (OH) with C-band as alternate as dictated by the comet composition and brightness.

RFI Considerations

1
Frequency Ranges Planned

1665-1667
2380
4800-5200