

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: VLBI
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 4 Hours
 Minimum Useful Time: 30 min

Proposal Title: Ultra-high resolution observations of hydroxyl masers with Space-VLBI
ABSTRACT:

We request 4 hours (including overhead) of Arecibo time for a non-imaging space-VLBI observations of 4 OH masers with unresolved spots with RadioAstron. The main goal of this project is to estimate correlated flux density, size and brightness temperature of the most compact maser spots. Successful RA-Arecibo measurements will provide space-ground baselines ranging from 4 to 8 Earth diameters, and give the valuable limits on the brightness temperatures and the sizes of individual spots. Fringe detection elucidates the possibility of using masers as tools to measure motions and parallaxes for the sources of a particular category, and provides the necessary input for the studies of their pumping mechanisms. This proposal is submitted as part of the Radioastron maser program .

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Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1644 - 1676