

Technical Page

Proposal Type: Regular
 General Category: VLBI
 Observation Category: Extragalactic
 Total Time Requested: 40 Hours
 Minimum Useful Time: 1 hour

Proposal Title: Radioastron-Arecibo Space VLBI survey of AGN at extreme angular resolution
ABSTRACT:

We request 40 hours of Arecibo time in February-May 2012 for a non-imaging Space VLBI survey for the brightest and most compact AGN jet cores with Radioastron and Arecibo at L and C bands. The main goal of this project is to determine the correlated flux density, angular size, and brightness temperature of the most compact structure(s) in the AGN radio core located in the jet base. We will probe the inverse-Compton limit and Doppler boosting of AGN cores testing the current widely accepted jet model of synchrotron emitting relativistic electrons, inverse-Compton cooling, and relativistic beaming. This proposal is submitted as part of the Radioastron early science program.

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Remote Observing Request

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

Instrument Setup

L-wide C

Atmospheric Observation Instruments:

Special Equipment or setup: MK5A VLBI disk recording

RFI Considerations

Frequency Ranges Planned