

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: IPS
 Total Time Requested: 60 Hours
 Minimum Useful Time: 1h

Proposal Title: IPS-AO: Investigating the solar wind properties and exploring the AO capability for Interplanetary Scintillation (IPS) Measurements.

ABSTRACT:

We propose to perform routinely IPS observations during the months when the Sun is in the Arecibo Observatory beam (between March and September) as part of the IPS-AO long term program, starting in 2019. To achieve our goals, we request 4 hours of observations every week centered close to noontime from mid-March to the end of September 2019. Based on our recent experience, we prefer 327 MHz, L, S-band high and C-bands, even though other frequencies can be used depending on the source availability and their elongation. The proposed IPS observations will provide a baseline for the understanding of physical conditions of potentially space weather events at their initiation stage. The establishment of the IPS-AO program is crucial for Heliospheric and Space weather research, and will open up a new application of the AO unique capability for the scientific community interested to understand the coupling between the solar and the terrestrial environments.

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Remote Observing Request

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

Instrument Setup

430 G L-wide C S-low 327 S-high C-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..