**Proposal Title:** A Pilot Radio Survey of T Tauri Systems at 4-5 GHz

**ABSTRACT:**

T Tauri systems harbor pre-main sequence stars embedded in circumstellar disks that may be forming planets. Although studying the interaction of stellar magnetic fields with their surrounding disks is important to understanding accretion and the evolution of disk structure, the measurement and characterization of these magnetic fields has yet to be attempted. Radio emission may be created by several processes within these early solar systems, and provides one important tool to probe their magnetic fields at a variety of strengths and time scales. Our pilot survey will leverage Arecibo Observatory’s unique ability to conduct high-temporal resolution polarimetric and spectroscopic observations of three T Tauri systems. Recent ALMA observations of our targets have revealed the gas and dust properties of their disks. Together, these observations will enable an unprecedented examination of the characteristics, activity, and processes of magnetism within star-forming regions.

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<thead>
<tr>
<th>Name</th>
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**Remote Observing Request**

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

**Instrument Setup**

C

**Atmospheric Observation Instruments:**

**Special Equipment or setup:** C-band receiver; Mock spectrometer

**RFI Considerations**
Frequency Ranges Planned

N/A