



SPOTS - SpectroPolarimetric Observations of T Tauri Stars: a new approach to unveil disks and jets at sub-au scale



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Characterizing the sub-au scale environments around T Tauri Stars through linear spectropolarimetry and spectro-imaging of optical forbidden lines

Project based on high-resolution spectroscopic and spectropolarimetric data acquired with VLT/CRIFRES+ and LBT/PEPSI and on spectro-imaging data acquired with VLT/MUSE, in the framework of the large JEDI (JETS and Disks@INAF) collaboration

RESULTS AND ACTIVITIES SUPPORTED BY THIS GRANT

- **2 weeks of visit at ESO - Garching** (November - December, 2022)
focused on learning CRIFES+ data reduction techniques and on enhancing scientific collaborations with ESO collaborators working on high-resolution spectroscopic observations
- **POSTER “SPOTS - SpectroPolarimetric Observations of T Tauri Stars - preliminary results”**
presented at the Solar Polarization Workshop X - Kyoto (November, 2022)
- **POSTER “High-angular-resolution AO observations of jets and winds from YSOs”**
presented at the Protostars and Planets VII - Kyoto (April, 2023)
- Participation of S. Antonucci to the “**Jets and Winds from Young Stars” workshop** in Maynooth (Ireland) to collaborate with E. Whelan’s group on our MUSE data of jet-driving T Tauri (June, 2023)

PAPERS IN PREPARATION

- SpectroPolarimetric Observations of T Tauri Stars (SPOTS)
 - I. High-resolution linear spectropolarimetry of RY Tau, GM Aur, and DG Tau
- VLT/MUSE observations of micro-jets from T Tauri stars
 - I. BM Cha, Sz 96, and CW Cha

FUTURE ACTIONS

- purchase of 3 new laptops for the members of the group working on the data (order to be sent early December)
- possible organization of a dedicated workshop

CRITICALITIES

No perceived risk or criticality. The assigned budget will cover all of the planned activities.