



## Solar System Science $S^3$ Seminar 2025

### Wednesday 16 April 2025

|                 |                  |   |
|-----------------|------------------|---|
| 14:00h – 14:30h | Sanghita Chandra | Solar spicules and RBEs/RREs in MURaM simulations |
| 14:30h – 15:00h | Miles Lindner    | In situ Rb-Sr using fs-LA-MS/MS-MC-ICP-MS         |

### Wednesday 23 April 2025

|                 |                        |   |
|-----------------|------------------------|---|
| 13:15h – 13:45h | <b>Student meeting</b> |   |
| 14:00h – 14:30h | Ilse de Langen         | Driving zonal flows in Europa's ocean by magnetic induction |

### Wednesday 07 May 2025

|                 |                 |  |
|-----------------|-----------------|--|
| 14:00h – 14:30h | Edvarda Harnes  | Chromospheric Fe I lines in the near-ultraviolet solar spectrum: Simulations vs observations |
| 14:30h – 15:00h | Prithwitosh Dey | Probing the solar convection zone with inertial modes  |

### Wednesday 14 May 2025

|                 |                     |  |
|-----------------|---------------------|--|
| 14:00h – 14:30h | Lisa Marie Beckmann | Characterising stellar oscillations in the brightest PLATO targets |
| 14:30h – 15:00h | Arjun Kannan        | Non-thermal motions in the solar corona                            |

### Wednesday 21 May 2025

|                 |                        |  |
|-----------------|------------------------|--|
| 13:15h – 13:45h | <b>Student meeting</b> |  |
| 14:00h – 14:30h | Meghna Dutta           | JUICE-SWI LEGA data analysis preparation: Basic radiative transfer and retrieval modeling/analyses             |
| 14:30h – 15:00h | Yifeng Fu              | Using boundary layer theories to quantify the boundary layer asymmetry in spherical Rayleigh-Bénard convection |

### Wednesday 28 May 2025

|                 |                     |  |
|-----------------|---------------------|--|
| 14:00h – 14:30h | Jude Simmons        | An analysis of Fabry-Pérot etalons for the Photospheric Magnetic Imager  |
| 14:30h – 15:00h | Muneeb Mushtaq      | Nonlinear saturation mechanism of self-excited toroidal modes  |
| 15:00h – 15:30h | Kunal Hardeep Singh | Characterizing Ca II K line core profiles in high resolution Sunrise Ultraviolet Spectropolarimeter and Imager (SUSI) observations |

### Wednesday 4 June 2025

|                 |                        |  |
|-----------------|------------------------|--|
| 14:00h – 14:30h | Neelanchal Joshi       | Inertial mode eigenfunctions from local correlation tracking                                       |
| 14:30h – 15:00h | Aswathi Krishnan Kutty | Simulation of sunspots in the chromosphere and further comparison of the results with observations |
| 15:00h – 15:30h | Noemi Padar            | The effect of the m=1 high-latitude mode on the Sun's surface magnetic field                       |

### Wednesday 18 June 2025

|                 |                        |  |
|-----------------|------------------------|--|
| 13:15h – 13:45h | <b>Student meeting</b> |  |
| 14:00h – 14:30h | Illya Lohay            | Simulating geomagnetic reversals: Aiming for Earth-like statistics |
| 14:30h – 15:00h | Ajay Kumar Yadav       | Using modern data to understand historical solar observations      |
| 15:00h – 15:30h | Duresa Temaj           | Reconstructing annual solar irradiance over the last 9 millennia   |

### Wednesday 25 June 2025

|                 |                     |  |
|-----------------|---------------------|--|
| 14:00h – 14:30h | Mario Roco Moraleda | Investigating high-speed outflows from a coronal hole with UV spectroscopy |
| 14:30h – 15:00h | Fabio Prencipe      | Kinetic simulations of helium in the Hermean plasma environment            |
| 15:00h – 15:30h | Betty Pei-Chun Tsai | Modeling Ganymede's magnetic field and surface charging processes          |

### Wednesday 2 July 2025

|                 |                       |  |
|-----------------|-----------------------|--|
| 14:00h – 14:30h | Suprabha Mukhopadhyay | Modelling the low-frequency modes of the Sun           |
| 14:30h – 15:00h | Bhinva Ram            | Thermal evolution of solar coronal loops               |
| 15:00h – 15:30h | David Ivens           | Properties of sunspot penumbrae studied through SO/PHI |

### Wednesday 9 July 2025

|                 |                |   |
|-----------------|----------------|---|
| 14:00h – 14:30h | Aarushi Rawat  | Denosing far-side helioseismic maps: Validating with STEREO/EUVI images and SO/PHI magnetograms |
| 14:30h – 15:00h | Abhas Pradhan  | Rapid moss variability and implications for active region core heating in the solar corona      |
| 15:00h – 15:30h | Yash Mandowara | Nature of the observed m=3 Rossby mode  |

### Wednesday 16 July 2025

|                 |                        |   |
|-----------------|------------------------|---|
| 13:15h – 13:45h | <b>Student meeting</b> |   |
| 14:00h – 14:30h | Rosa Keers             | Analysis and removal of limb darkening and transit light source effects from exoplanet transit spectroscopy |