

----- Wednesday, October 25, 2023 -----

14:00 - 14:30 Registration, opening remarks

**Session: Solar Atmosphere: magnetic field emergence and dynamics, convection, wave propagation, chromospheric and coronal heating**

----- chair DANIELE SPADARO -----

14:30 14:55 **Salvo Guglielmino** : *Magnetic coupling between photosphere and upper atmosphere: the role of small-scale interactions*

14:55 15:10 **Paolo Romano** : *Chromospheric Evershed Flow in Sunspot Penumbra: Insights from SOM Technique Observations*

15:10 15:25 **Luca Barbieri** : *Temperature inversion in a gravitationally bound plasma atmosphere*

15:25 15:40 **Serena Maria Lezzi** : *Dark Halos around Solar Active Regions: multi-wavelength view of the Dark Halo around NOAA 12706*

**15:40 16:40 Coffee Break and Poster Session**

----- chair FABIO REALE -----

16:40 17:05 **Paolo Pagano** : *From magnetic reconnection to nanojets and nanoflares in the solar corona*

17:05 17:20 **Petr Jelínek** : *Plasma vortices, magnetic field cocoons and plasmoids in the turbulent plasma flow*

17:20 17:35 **Luca Zangrilli** : *Coronal Magnetograph - CorMag - Observing the Solar Corona from the Stratosphere*

17:35 17:50 **Gabriele Cozzo** : *MUSE EUV spectroscopy of a coronal loop system undergoing MHD-avalanche*

17:50 18:05 **Alberto Pellizzoni** : *Single-Dish Radio Monitoring of the Solar Atmosphere with INAF Radiotelescopes: Early Scientific Results and Future Challenges*

----- Thursday, October 26, 2023 -----

### **Session Solar Eruptions: observations and theoretical modeling of spicules, jets, filaments/prominences, CMEs**

----- chair VINCENZO ANDRETTA -----

- 09:15 09:40 **Roberto Susino** : *Coronagraphic Observations of Coronal Mass Ejections and New Results from Solar Orbiter*
- 09:40 09:55 Shuting Li : *First multi-view observations of an erupting prominence in the UV Lyman-alpha line with SOLO/Metis and ASO-S/LST instruments*
- 09:55 10:10 Clementina Sasso : *Multi-spacecraft Observations of a Large Prominence Eruption and a CME*
- 10:10 10:25 Giuseppe Nisticò : *A high-latitude coronal mass ejection observed by a constellation of coronagraphs: Solar Orbiter/Metis, STEREO-A/COR2, and SOHO/LASCO*
- 10:25 10:40 Federica Frassati : *Study of plasma heating processes in a CME-driven shock-sheath region observed with Metis coronagraph*

**10:40 11:40 Coffee Break and Poster Session**

----- chair GIUSEPPE NISTICÒ -----

- 11:40 11:55 Giuliana Russano : *Strong UV-emitting eruptions observed with the Metis coronagraph on-board Solar Orbiter*
- 11:55 12:10 Emanuele Amato : *Study of transient events in the solar corona through combined analysis of images acquired by the Metis multi-channel coronagraph on board the ESA Solar Orbiter mission*
- 12:10 12:35 **Gianluca Napoletano** : *Prediction of ICME arrivals at Earth through ensemble modelling*
- 12:35 12:50 Mattia Sangalli : *Local MHD simulations of Interplanetary Coronal Mass Ejections*
- 12:50 13:05 Giuseppe Consolini : *On the dynamical complexity of magnetospheric dynamics.*

**13:05 14:35 Lunch**

### **Session Solar Flares : radiation, reconnection, SEP diffusion**

----- chair ANNA MARIA MASSONE -----

- 14:35 15:00 **Vanessa Polito** : *Energy release in the impulsive phase of flares*
- 15:00 15:15 Fabiana Ferrente : *Multi-line spectropolarimetric NLTE inversions of the X1.6 Flare occurred in AR12192*
- 15:15 15:30 Alessandro Bemporad : *First Determination in the Extended Corona of the 2D Thermal Evolution of a Current Sheet after a Solar Eruption*
- 15:30 15:45 Marco Molinaro : *CAESAR prototype for ASPIS: from Space Weather chains of phenomena through resource management to user interfaces*

**15:45 16:45 Coffee Break and Poster Session**

— chair ANNA MARIA MASSONE —

16:45 17:10 **Paolo Massa** : *Hard X-ray imaging-spectroscopy of solar flares with Solar Orbiter STIX*

17:10 17:25 Hervé Haudemand : *Characterization of a X-ray monitor on-board the Helianthus sailcraft*

17:25 17:40 Simone Benella : *Current observations and future perspectives of the CSES-01 High Energy Particle Detector for solar physics and space weather studies*

17:40 17:55 Elena Orlando : *Overview and Updates of the non-flaring Emission from the Sun by Galactic Cosmic Rays*

----- Friday, October 27, 2023 -----

**Session Solar Wind: heating & acceleration, identification of the sources, properties of the heliospheric solar wind**

----- chair LUCA ZANGRILLI -----

09:30 09:55 **Emanuele Papini** : *Properties of plasma turbulence at sub-ion scales: a spatiotemporal multiscale analysis via Hall-MHD and hybrid simulations.*

09:55 10:10 **Francesco Carella** : *Study of reconnection exhausts in the solar wind at 1 A.U. with Machine Learning techniques*

10:10 10:25 **Silvio Giordano** : *Solar Wind Speed Maps from the Metis coronagraph observations*

10:25 10:40 **Lucia Abbo** : *Combined coronal observations of streamer belt with Metis and EUI instruments on Solar Orbiter*

10:40 10:55 **Ruggero Biondo** : *2D MHD modeling of switchbacks from jetlets in the slow solar wind*

**10:55 11:55 Coffee Break and Poster Session**

----- chair MIRKO PIERSANTI -----

11:55 12:20 **Luca Franci** : *Observational and numerical evidence of multi-scale pressure-balanced fluctuations in the slow solar wind*

12:20 12:35 **Raffaella D'Amicis** : *Alfvénicity and non-Maxwellian features observed in solar wind streams by Solar Orbiter*

12:35 12:50 **Lorenzo Matteini** : *The solar wind ion temperature profile: non-adiabatic expansion and heating*

12:50 13:05 **Denise Perrone** : *In-situ measurements of solar wind plasma and their combination with remote sensing observations: Italian contribution*

**13:05 14:35 Lunch**

----- chair LUCA GIOVANNELLI -----

14:35 14:50 **Marco Stangalini** : *The Italian contribution to the next generation high resolution solar physics missions: Solar-C and MUSE*

**Session Long and Large Scale dynamics: Solar Cycle, Corotating Interaction Region, Interplanetary Shocks, Solar Irradiance**

14:50 15:15 **Daniele Calchetti** : *The Polarimetric and Helioseismic Imager on board Solar Orbiter: challenges, data and results from the Nominal Mission Phase*

15:15 15:30 **Edoardo Alaimo** : *Advancements in Carbon Nanotube-Based Filters for EUV Solar Coronal Spectroscopy*

15:30 15:55 **Silvia Perri** : *Flat particle energy spectra upstream of fast interplanetary shocks*

15:55 16:55 **Coffee Break and Poster Session**

chair **MARCO ROMOLI**

16:55 17:20 **Giulia D'Angelo** : *Effects of severe storm drivers on the ionosphere-magnetosphere coupling*

17:20 17:35 Mirko Piersanti : *On the magnetosphere-ionosphere coupling during the May 2021 Geomagnetic storm.*

17:35 17:50 Luca Giovannelli : *The magnetic complexity of solar active regions: insight on the CME-flare relationship in Solar Cycle 24*

**POSTER SESSION**

- Vincenzo Andretta *Near Infrared off-limb lines with Cryo-NIRSP*
- Ruggero Biondo *Reconstructing the Parker Spiral with The Reverse In-situ and Mhd Approach (RIMAP)*
- Christina Karakotia *Solar radio monitoring with the 32-m Grueff Radio Telescope*
- Giuseppe Nisticò *A comprehensive analysis of the CME-driven shock of the 5th of Sep 2022 by multi-spacecraft observations*
- Paolo Pagano *Using S2WARM, a physic-based numerical model, to identify eruptive active regions. A 45 days analysis sources of Space Weather*