

----- Monday, October 28, 2024 -----

**08:00 – 09:10**    **Registration**

**09:10 – 09:15**    **Welcome**

**Session: Parker Solar Probe, Solar Orbiter, and future missions**

**09:15 – 09:45**    Etienne Berriot: *Parker Solar Probe - Solar Orbiter radial alignment study: heliospheric current sheet evolution*

**09:45 – 10:15**    Charalambos Ioannou: *Polytropic analysis of large-scale compressive fluctuations in the solar wind using Solar Orbiter data*

**10:15 – 10:45**    Srijan Bharati Das: *Joint VDF optimization using SPAN & SPC onboard PSP*

**10:45 – 11:30**    **Coffee break**

**11:30 – 12:00**    Luca Franci: *Preliminary results from the 'Fast Wind' Solar Orbiter observing plan*

**12:00 – 12:30**    Simone Landi: *Brief overview of the HENON mission*

**12:30 – 13:15**    Marco Velli: *Solar wind origins*

**13:15 - 14:45**    **Lunch**

**Session: Origin and evolution of the solar wind**

**14:45 – 15:15**    Lorenzo Matteini: *Can ion beams heat the solar wind?*

**15:15 – 15:45**    Chadi Salem: *Electrostatic solitary waves: Can they accelerate the solar wind?*

**15:45 - 16:30**    **Coffee break**

**16:30 – 17:00**    William Matthaeus: *Three things you may not know about heliospheric turbulence, but you should...*

----- Tuesday, October 29, 2024 -----

**Session: Shocks, reconnection, particle acceleration, solar energetic particles, and cosmic rays**

**09:35 – 10:05** Arpad Kis: *Simulation of scattering of FAB ions at a quasi-parallel bow shock*

**10:05 – 10:35** Keiichi Ogasawara: *Helium pickup ion velocity distributions to probe and evaluate local physical processes*

**10:35 – 10:45** Sergio Servidio: *in memory of Gianni Lapenta*

**10:45 – 11:30** **Coffee break**

**11:30 – 12:00** Daniele Del Sarto: *Microscopic current sheets and fast tearing modes in solar wind turbulence*

**12:00 – 12:30** Vittoria Berta: *3D Magnetic Reconnection in Relativistic plasmas with a fourth-order accurate finite volume method*

**12:30 – 13:00** Matteo Bugli: *Relativistic reconnection with effective resistivity: capturing kinetic dissipative effects with fluid models*

**13:00 - 14:30** **Lunch**

**14:30 – 15:00** Davide Manzini: *The differential heating problem in turbulent plasmas*

**15:00 – 15:30** Jefferson Agudelo: *Characterization of the Sub-Grid-Scale Effects on the Ohm's Law Terms in Hybrid Simulations of Turbulence at the Earth's Magnetosheath*

**15:30 – 16:00** Ming Zhang: *Transport of Solar Energetic Particles Through Turbulent Heliospheric Magnetic Fields*

**16:00 - 16:45** **Coffee break**

**16:45 – 17:15** Stefano Livi: *Acceleration of Suprathermal Heavy Ions at Shocks*

**Session: Observational and simulation methods and studies**

**17:15 – 17:45** Pier Di Bartolomeo: *Observational evidence of magnetic field reversals at Mercury's orbit after Bepi Colombo first flyby*

**20:00 - ...** **Social Dinner:** Antico Ristoro di Cambi, via S. Onofrio 1R

----- Wednesday, October 30, 2024 -----

**Session: Observational and simulation methods and studies**

**09:15 – 09:45** Virgilio Quattrocioni: *Schur Decomposition of Gradient Tensors in Plasma Turbulence*

**09:45 – 10:15** Giuseppe Consolini: *Irreversibility and energy transfer at non-MHD scales in a current disruption event*

**10:15 – 10:45** Giuseppe Arrò: *Spatio-Temporal Energy Cascade in Three-Dimensional Magnetohydrodynamic Turbulence*

**10:45 – 11:30** **Coffee break**

**11:30 – 12:00** Simone Benella: *Modeling fluctuations in solar wind through stochastic methods: recent advances, limits, and future perspectives*

**12:00 – 12:30** Paulina Quijia Pilapaña: *Assessing the Prevalence of Magnetic Reconnection in Collisionless Turbulent Plasmas using the Unsupervised TICC algorithm*

**12:30 – 13:00** George Miloshevich: *Moment closure problem: equation discovery and deep learning techniques applied to kinetic plasma simulations*

**13:00 - 14:30** **Lunch**

**Session: Plasma Astrophysics**

**14:30 – 15:00** Sergio Servidio: *Long-lived Equilibria in Kinetic Astrophysical Plasma Turbulence*

**15:00 – 15:30** Ryan Golant: *To B or Not To B: The Turbulent Origins of Cosmic Magnetism*

**15:30 – 16:00** Luca Del Zanna: *Acceleration of the ECHO code for GRMHD on GPUs and applications to relativistic turbulence in Pulsar Wind Nebulae*

**16:00 - 16:45** **Coffee break**

**16:45 – 17:15** Zoltan Vörös: *Turbulent dynamo*

----- Thursday, October 31, 2024 -----

**Session: Solar wind and coronal turbulence and theories of dissipation**

- 09:45 – 10:15** Petr Hellinger: *Rugged magnetohydrodynamic invariants in weakly collisional plasma turbulence*
- 10:15 – 10:45** Olga Alexandrova: *Coherent structures in solar wind turbulence: vortices or current sheets?*
- 10:45 – 11:30** **Coffee break**
- 11:30 – 12:00** Andrea Verdini: *Decay of MHD turbulence in the expanding solar wind, WIND observations*
- 12:00 – 12:30** Utsav Panchal: *Evidence for a link between turbulence and the generation of ion cyclotron waves via the helicity barrier effect in the solar wind*
- 12:30 – 13:00** Emanuele Papini: *Plasma turbulence in the Earth ionosphere: Electric field observations from CSES-01*
- 13:00 - 14:30** **Lunch**
- 14:30 – 15:00** Jiaming Wang: *1/f Noise in the Heliosphere: a Target for PUNCH Science*
- 15:00 – 15:30** Francesco Pecora: *Measuring the turbulent energy cascade rate -- single- and multi-point considerations*
- 15:30 – 16:00** Subash Adhikari: *Revisiting Pressure-Strain Interaction in Incompressible Plasma Turbulence*
- 16:00 - 16:45** **Coffee break**
- 16:45 – 17:15** Free discussion, final remarks