

Cross-scale coupling of Heliophysics Systems

12-16 May 2025

PRELIMINARY PROGRAM

Sunday, 11 May

20:00 Welcome dinner

Monday, 12 May

08:45-09:45 Registration

10:00-10:30 Welcome and School Introduction (**Course Directors**)

10:30-11:15 Mesoscale transport and evolution of solar magnetic flux
(**Luis Bellot Rubio**)

11:15-11:30 Interval

11:30-12:15 Mesoscale transport and evolution of solar magnetic flux
(**Luis Bellot Rubio**)

12:15-13:00 The links among the Sun systems: flares, CMEs, and solar winds
(**Miho Janvier**)

13:00-14:30 Lunch

14:30-15:15 The links among the Sun systems: flares, CMEs, and solar winds
(**Miho Janvier**)

15:15-16:00 Multiscale nature of the solar wind (**Lorenzo Matteini**)

16:00-16:30 Coffee Break

16:30-17:15 Multiscale nature of the solar wind (**Lorenzo Matteini**)

17:15-17:45 Student presentations/networking

19:00 Dinner

20:30 Social event (Urban trekking in the city center)

Tuesday, 13 May

09:00-09:45 Student presentations/networking

09:45-10:30 Highly structured solar wind: multi-source connectivity (**Steph Yardley**)

10:30-11:00 Coffee Break

11:00-11:45 Highly structured solar wind: multi-source connectivity (**Steph Yardley**)

11:45-12:30 Cross-Scale Couplings in the Solar Wind-Magnetosphere Interactions (**Colin Forsyth**)

12:30-14:00 Lunch

14:00-14:45 Cross-Scale Couplings in the Solar Wind-Magnetosphere Interactions (**Colin Forsyth**)

14:45-15:30 Open questions in the connections between different layers of the solar atmosphere (**Nicholeen Viall**)

15:30-16:00 Coffee Break

16:00-16:45 Open questions in the connections between different layers of the solar atmosphere (**Nicholeen Viall**)

16:45-17:30 Solar wind mesoscale structures: properties and geo-effectiveness (**Simone Di Matteo**)

19:00 Dinner

Wednesday, 14 May

09:00-09:45 Student presentations/networking

09:45-10:30 Transient ion foreshock and magnetosheath phenomena (**Heli Hietala**)

10:30-11:00 Coffee Break

11:00-11:45 Transient ion foreshock and magnetosheath phenomena (**Heli Hietala**)

11:45-12:30 Cross-scale processes in radiation belt dynamics (**Ioannis Daglis**)

12:30-14:00 Lunch

15:00-19:30 Social event (Visit to Bominaco and Santo Stefano di Sessanio)

20:00 Dinner

Thursday, 15 May

09:00-09:45 Student presentations/networking

09:45-10:30 Challenges in fluid, hybrid, and kinetic simulation of Heliophysics phenomena (**Minna Palmroth**)

10:30-11:00 Coffee Break

11:00-11:45 Challenges in fluid, hybrid, and kinetic simulation of Heliophysics phenomena (**Minna Palmroth**)

11:45-12:30 Mesoscale structures and processes during geomagnetic storms (**Matina Gkioulidou**)

12:30-14:00 Lunch

14:00-14:45 Mesoscale structures and processes during geomagnetic storms

(**Matina Gkioulidou**)
14:45-15:30 Mesoscale processes in magnetosphere-ionosphere coupling
(**Maxime Grandin**)
15:30-16:00 Coffee Break
16:00-16:45 Mesoscale processes in magnetosphere-ionosphere coupling
(**Maxime Grandin**)
16:45-17:30 Student presentations/networking
19:00 Dinner

Friday, 16 May

09:00-10:00 Overview of remote sensing instruments (**Marco Romoli**)
10:00-11:00 Overview of in situ instruments (**Stefano Livi**)
11:00-11:30 Coffee Break
11:30-12:30 Round table on Heliophysics community efforts
with scene setting talks:
11:30 – 11:45 European perspective (**Heli Hietala**)
11:45 – 12:00 US perspective (**Nicholeen Viall**)
12:30-12:45 Concluding remarks
13:00-14:30 Lunch