

International School of Space Science
(<http://www.cifs-iss.org/>)

The different spatio-temporal scales of the solar magnetism
11 – 15 April 2022

Location: Dipartimento di Scienze Umane – Università dell’Aquila (<https://scienzeumane.univaq.it/>)

Final Program

Monday, 11

08:15 - 09:30 Registration
09:30 - 09:45 Welcome (ISSS Director) and School Introduction (Course Directors)

Session I: The Global Magnetic Field of the Sun and the Solar Cycle

09:45 - 10:25 The Solar Cycle over the centuries I (Chatzistergos)
10:25 - 10:30 Discussion

10:30 - 11:00 Coffee Break

11:00 - 11:40 The Solar Cycle over the centuries II (Chatzistergos)
11:40 - 12:20 Magnetic Field Amplification by Fluid Motions (Charbonneau)
12:20 - 12:30 Discussion of both lectures

12:30 - 14:15 Lunch

14:15 - 14:55 Solar Cycle Models (Charbonneau)
14:55 - 15:35 Solar Cycle Prediction I (K. Petrovay)
15:35 - 15:45 Discussion of both lectures

15:45 - 16:10 Coffee Break

16:10 – 16:50 Solar Cycle Prediction II (K. Petrovay)
16:50 – 17:00 Question Time & Discussion

20:00 Dinner

Tuesday, 12

Session II: The Small-Scale Magnetic Field: Emergence and Evolution

09:00 - 09:40 Structure and Properties of Small-Scale Magnetic Fields I (Bellot Rubio)
09:40 - 10:20 Surface Processes I (Del Moro)
10:20 - 12:30 Discussion of both lectures

10:30 - 11:00 Coffee Break

11:00 - 11:40 Structure and Properties of Small-Scale Magnetic Fields II (Bellot Rubio)
11:40 - 12:20 Surface Processes II (Del Moro)
12:20 - 12:30 Discussion of both lectures

12:30 - 14:15	Lunch
14:15 - 14:55	Coupling of the solar atmosphere by small-scale fields I (Guglielmino)
14:55 - 15:00	Discussion
15:00 - 15:45	Hands-on Session on Data Analysis - ME codes (Bellot-Rubio)
15:45 - 16:10	Coffee Break
16:10 - 17:05	Hands-on Session on Data Analysis - SIR code (Guglielmino)
17:05 - 18:00	Hands-on Session on Data Analysis - NICOLE code (Louis)
20:00	Dinner

Wednesday, 13

09:00 - 09:40	Coupling of the solar atmosphere by small-scale fields II (Guglielmino)
---------------	---

Session III: Sunspots: Processes of Formation and Evolution and the Fine Structure of Umbrae and Penumbrae

09:40 - 10:20	3D Sunspot structure I (Joshi)
10:20 - 10:30	Discussion of both lectures
10:30 - 11:00	Coffee Break
11:00 - 11:40	3D Sunspot structure II (Joshi)
11:40 - 12:20	Sunspot light bridges: magnetic configuration and Activity I (Louis)
12:20 - 12:30	Discussion of both lectures
12:30 - 14:15	Lunch
14:15 - 14:55	Sunspot light bridges: magnetic configuration and Activity I (Louis)
14:55 - 15:35	Structure and Evolution of the Penumbra I (Murabito)
15:35 - 15:45	Discussion of both lectures
15:45 - 16:15	Coffee Break
16:15 - 16:55	Structure and Evolution of the Penumbra II (Murabito)

Session IV: MHD Simulations

16:55 - 17:35	Small-Scale Dynamos on the Sun I (Rempel)
17:35 - 17:45	Discussion of both lectures
20:00	Dinner

Thursday, 14

09:00 - 09:40	Small-Scale Dynamos on the Sun II (Rempel)
09:40 - 10:20	Sunspot Simulations I (Cheung)
10:20 - 10:30	Discussion of both lectures
10:30 - 11:00	Coffee Break
11:00 - 11:40	Sunspot simulations II (Cheung)
11:40 - 12:20	Simulations of flux emergence events I (Nobrega Siverio)
12:20 - 12:30	Discussion of both lectures

12:30 - 14:30 Lunch
14:30 - 15:10 Simulations of flux emergence events I (Nobrega Siverio)

Session V: Magnetic Field Instabilities/Reconnection, Eruptive Events and their Impact on Space Weather

15:10 - 15:50 Overview of Eruptive Events Occurring in the Solar Atmosphere I (Zuccarello)
15:50 - 16:00 Discussion of both lectures
16:00 - 16:30 Coffee Break
16:30 - 17:40 Overview of Eruptive Events Occurring in the Solar Atmosphere II (Zuccarello)
17:40 - 18:00 Question Time & Discussion
20:00 Dinner

Friday, 15

09:00 - 09:40 Magnetic Flux and Coronal Bright Points I (Madjarska)
09:40 - 10:20 CMEs and their Impact on Space Weather I (Temmer)
10:20 - 10:30 Discussion of both lectures
10:30 - 11:00 Coffee Break
11:00 - 11:40 Magnetic Flux and Coronal Bright Points II (Madjarska)
11:40 - 12:20 CMEs and their Impact on Space Weather II (Temmer)
12:20 - 12:30 Discussion of both lectures
12:30 - 12:40 Concluding remarks
12:40 - 14:30 Lunch