The 4th APSCO & ISSI-BJ Space Science School

« Space Weather:

From Source to Impact in the Heliosphere »

We are pleased to announce the 4th International 8-day School on «*Space Weather: From Source to Impact in the Heliosphere*», organized by APSCO and ISSI-BJ. The School will be held at Sun Yat-sen University in Zhuhai, China, from **November 3 to 10, 2025**. For further details, please visit the School's official Website; see also the promotional Poster.

Introduction to the School

You are invited to register for the fourth biennial joint Space Science School organized jointly by the Asia–Pacific Space Co-operation Organization (APSCO) and the International Space Science Institute–Beijing (ISSI-BJ). The School is specifically aimed at Master's and Ph.D. students, post-doctoral researchers, and early-career scientists or engineers, intending to advance their knowledge in space sciences. The 2025 edition will focus on *Space Weather — From its Source to its Impacts on the Heliosphere*. Participants will gain in-depth expertise in the science of space weather, related observational methods, and applications throughout the heliosphere. While space weather phenomena span the entire Sun–Earth system and the Heliosphere, this School will specifically address the full chain of space weather effects from its solar origins to terrestrial impacts and magnetospheric dynamics (including solar wind interactions), ionospheric and the upper atmospheric processes. Through interdisciplinary lectures and practical sessions, participants will explore these interconnected domains, with emphasis on both fundamental science and operational applications.

The School will commence with three days of introductory lectures delivered by invited experts in the field of Space Weather. These sessions will provide a comprehensive overview of key topics, with each lecture followed by dedicated time for in-depth discussion and questions from participants. Our speakers are distinguished scientists and engineers, selected for their expertise, teaching excellence, and experience in mentoring early-career researchers. While the lectures will address the core themes outlined in the table below, the complete programme —including detailed topics and schedules— will be published on the School's website by the end of August 2025.

Participants will be divided into four thematic Working Groups aligned with their academic backgrounds. Under the guidance of expert tutors, each Group will develop a collaborative research project focused on key aspects of space weather. These projects will result in comprehensive reports, to be published in a dedicated issue of ISSI-BJ's *Taikong* magazine, highlighting the School's scientific outputs. The programme will culminate on the final day with research presentations from each Working Group. These sessions will serve as an opportunity for participants to showcase their achievements while receiving constructive feedback and recommendations from both tutors and their peers.

Working Groups	***Focus***	***Means***
Solar Activity (Local & Global Scales)	Examining the solar drivers of space weather, from flare processes to coronal mass ejections.	Theory Simulations Observations with data
Magnetosphere (Solar Wind)	Exploring the solar–terrestrial interactions and their role in space weather.	Theory Simulations Observations with data
Ionosphere & Upper Atmosphere	Investigating how solar and geomagnetic activity influence the Earth's near-space environment.	Theory Simulations Observations with data
Space Weather (From Source to Impact)	Tracing the chain of effects from solar eruptions to ground-level technologies.	Theory Simulations Observations with data

The four Working Groups will provide participants with hands-on experience across the full spectrum of space weather research.

- The Solar Activity group will analyse both localized phenomena like sunspots and global patterns, including solar wind variations, using remote sensing data and predictive models.
- In the Magnetosphere group, participants will examine how solar wind perturbations propagate through the Earth's magnetic shield, studying substorms and geomagnetic storms through combined satellite and ground observations.
- The Ionosphere & Upper Atmosphere team will focus on EISCAT radar techniques and IMCP datasets to track plasma disturbances and thermospheric responses, comparing these with other ground-based monitoring systems.
- The Space Weather Group will investigate the complete chain of space weather phenomena, from solar eruptions (flares, CMEs) through heliospheric propagation to their impacts on Earth's magnetosphere, ionosphere, and ground-based technologies.

The School welcomes applications from up to 60 qualified participants with academic backgrounds in solar physics, space science, space engineering, or related technical disciplines. During the registration process, applicants will be required to indicate their preferred Working Group based on their research focus areas. Students will be lodged at a hotel near the Sun Yat-sen University campus, in double rooms (with two students sharing a room).

English will be the official working language for all school activities, including lectures, working group sessions, and presentations. Participants are required to bring their own laptop computers equipped with standard office software.

Location & Local arrangement

The Space Science School will be held at Sun Yat-sen University in Zhuhai, China. We recommend that domestic participants fly into Shenzhen airport; international participants could consider Guangzhou or Hong Kong international airports.

Duration, Date

This is an 8-day School, running from Monday, November 2 to Tuesday, November 11, 2025.

Deadlines & Announcements

Progress	Dates
Announcement	July 28, 2025
Registration Deadline	September 30, 2025
First Circular (Logistical Details)	October 13, 2025
Second Circular (Publication of the Handbook)	October 21, 2025
Space Science School	November 03–10, 2025

Registration & registration fee

All applications must be submitted by September 30, 2025. Prospective attendees are required to complete and submit three key documents: the Registration Form, a concise two-page curriculum vitae, and your publication list. These materials should be sent as email attachments addressed to both Ms Francesca Garfagnoli at g.francesca@issibj.ac.cn and Ms Charis Xiong at charis@apsco.int, using the standardized subject line format "Application – 4th Space Science School - [Applicant's Full Name]". Participants will receive confirmation of successful submission within five business days.

Applicants applying under their country's APSCO agreement will be fully supported. For all other participants, *the standard registration fee is set at 2200 RMB (or 310 USD)*. For those who wish to avail themselves of the combined registration and accommodation package, *the total cost, inclusive of hotel stay, is 3500 RMB (or 500 USD)*. Payment of the fee must be done upon arrival, in cash or via WeChat Pay (the QR code will be available on NSSC website soon).

Publications

All lecture presentations delivered during the School will be compiled in digital format and made available to registered participants through a dedicated section of the School's official website. This curated collection will serve as a valuable reference resource for attendees. The collaborative research results developed by the Working Groups will be published as a comprehensive final report in a special edition of our *Taikong* magazine.

Contact persons:

Ms Francesca Garfagnoli
PR & Editorial Manager
International Space Science Institute–Beijing (ISSI-BJ)
E-mail: g.francesca@issibj.ac.cn

Ms Charis Xiong
E&T Manager of Education and Training Department
Asia-Pacific Space Cooperation Organization (APSCO)
E-mail: charis@apsco.int