The Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)
ANNUAL REPORT (1 JANUARY – 31 DECEMBER 2024)

Prepared by Kazuo Shiokawa, SCOSTEP President and Keith Groves, SCOSTEP Scientific Secretary

SCOSTEP is an Affiliated Body (thematic organization) of the International Science Council (ISC). Its long-term objectives include promoting international interdisciplinary programs of finite duration in solar-terrestrial physics, specifically to:

- Develop and sustain student interest in Sun-Earth connections,
- Promote efficient exchange of data and information between solar and terrestrial scientists in all countries and regions,
- Seek projects and programs that cross over transitional boundaries of physical regions and focused scientific disciplines.

SCOSTEP is engaged in science, capacity building, and public outreach to achieve these objectives in cooperation with other scientific organizations and scientific unions of the ISC. These other organizations are the Participating Bodies of SCOSTEP. These include COSPAR, IAGA/IUGG, IAMAS/IUGG, IAU, IUPAP, SCAR, URSI and WDS. The SCOSTEP Bureau consists of representatives of all of these scientific bodies, making it a truly interdisciplinary body.

The report that follows covers the period of 1 January to 31 December 2024. It reflects the activities carried out by the organization and its scientific programs. The year 2024 was the final year of the 5-year PRESTO program of SCOSTEP. The final PRESTO workshop was held in Brazil in November, and the Next Scientific Program committee was formed to identify the next program which is now defined as COURSE – Cross-scale coupling processes in solar-terrestrial system. Otherwise SCOSTEP continued to reach out to the solar-terrestrial physics community by participating in and hosting programs; providing grant opportunities for meetings, workshops, database development; the launch of a series of online seminars; and the SCOSTEP Visiting Scholar program. SCOSTEP also held its annual awards program for Distinguished Scientist and Young Scientist Award.

This report provides details on these activities carried out in the year 2024. All of these events and opportunities were communicated to the SCOSTEP scientific community via the SCOSTEP Newsletters and public announcements on relevant scientific community mailing lists including the scostep-all mailing list which contains ~2800 scientists of solar-terrestrial physics in more than 70 countries and regions.

1. SCOSTEP EXECUTIVES AND BUREAU MEMBERS

The SCOSTEP Executives for the period 2023-2027 include:
President: Dr. Kazuo Shiokawa, ISEE, Nagoya University, Japan
Vice President: Dr. Bernd Funke, IAA, CSIC, Spain
Past President: Dr. Nat Gopalswamy, NASA, USA
Scientific Secretary, Keith Groves, Boston College, USA

The SCOSTEP Bureau is comprised of the Executives named above together with representatives of SCOSTEP participating organizations. The representatives are appointed by the Secretary General of their organizations. In 2024, the Bureau members representing their organizations include: Yoshizumi Miyoshi (COSPAR), Renata Lukianova (IAGA/IUGG), Peter Pilewskie (IAMAS), Valery Nakariakov (IAU), Cristina Mandrini (IUPAP), Lucilla Alfonsi (SCAR), Jorge Chau (URSI) and Mamoru Ishii (WDS).

The SCOSTEP Bureau directs the scientific, administrative, and financial activities of SCOSTEP. The Bureau meets at least once annually. In 2024, the SCOSTEP Bureau met two times on 2 July (online) and 2 December (online).

2. MEMBER OF SCOSTEP

In 2024, Bureau did not receive applications to become new members of SCOSTEP. Currently national adherents from 36 countries/regions participate in SCOSTEP.

3. CAPACITY BUILDING AND OUTREACH ACTIVITIES

SCOSTEP is actively involved in the advancement of Capacity Building and scientific excellence through its scientific programs and partnerships with the ISWI, ISC and participating bodies of SCOSTEP. Through its initiatives, e.g. Workshops and Schools, SCOSTEP Visiting Scholar (SVS), and online capacity building lectures, SCOSTEP facilitates the training, interaction and collaboration of young and early career scientists with the best of the STP scientific community.

3.1 WORKSHOPS AND SCHOOLS

Each year, SCOSTEP supports a number of workshops and schools. SCOSTEP support for these activities are used to support travel and subsistence for participants from developing countries. In the year of 2024, SCOSTEP has supported the following 9 schools in Portugal, China, Nigeria, and Zambia. Detailed reports of these schools are shown in the SCOSTEP/PRESTO Newsletters (https://scostep.org/newsletter-archive) and the websites of each school.

(1) 1st European solar physics division (ESPD) summer school: Energization and heating in the solar plasma, Dubrovnik, Croatia, 29 April – 3 May 2024 (relevant to the PRESTO program) (https://oh.geof.unizg.hr/index.php/en/meetings/espd-school-2024)

1st European solar physics division (ESPD) summer school

(2) United Nations / Germany Workshop on the International Space Weather Initiative (ISWI), German Aerospace Center e.V. (DLR), Institute for Solar-Terrestrial Physics, Germany, 10-14 June 2024 (relevant to the PRESTO program)
(https://www.unoosa.org/oosa/en/ourwork/psa/schedule/2024/2024-iswi-workshop.html)

UN/Germany Workshop on ISWI

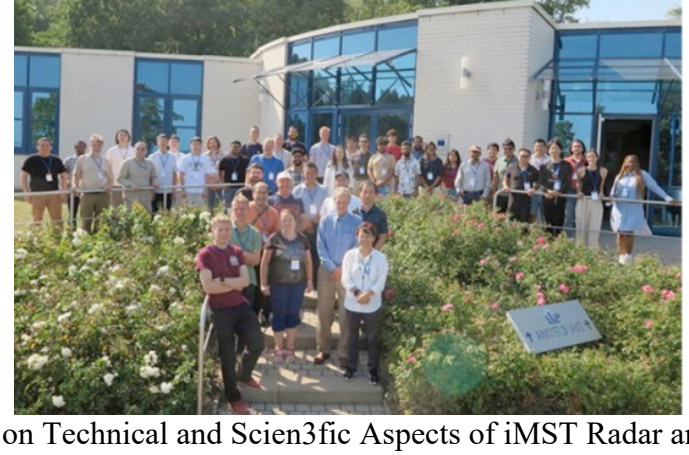
(3) COSPAR Capacity Building Workshop: Coronal and Interplanetary Shocks: Analysis of SOHO, STEREO, SDO, Wind, and ground-based radio data, Samarkand State University, Samarkand City, Uzbekistan, 26 August – 6 September 2024 (relevant to the PRESTO program)
(https://cospar2024samarkand.samdu.uz/index.php)

COSPAR Capacity Building Workshop: Coronal and Interplanetary Shocks

(4) COSPAR Capacity Building Workshop in Kenya: Modeling the ionosphere over Africa and improvements of the International Reference Ionosphere, Pwani University, Kilifi, Kenya, 2-13 September 2024 (https://iri2024.pu.ac.ke/sources/index.php)

COSPAR Capacity Building Workshop in Kenya

(5) School on Technical and Scien3fic Aspects of iMST Radar and Lidar, Leibniz Institute of Atmospheric Physics (IAP) in Kühlungsborn, Germany, 9-13 September 2024 (https://www.iap-kborn.de/aktuelles/veranstaltungen/mst16/school/)



School on Technical and Scien3fic Aspects of iMST Radar and Lidar

(6) ISWI International School on Space Science 2024, Nepal Academy of Science and Technology (NAST), Nepal, 15-19 September 2024 (relevant to the PRESTO program) (https://nps.org.np/iswi-international-school-on-space-science-2024/)

ISWI International School on Space Science 2024

(7) Space Weather and Upper Atmospheric Data Analysis Training Workshop for East African Community at Maseno University, Kenya on 23-24 September 2024 (relevant to the PRESTO program)

Space Weather and Upper Atmospheric Data Analysis Training Workshop for East African Community

(8) International Workshop on Monitoring Geospace Disturbances from the Ground: Scientific Challenges, Observational Networks, and International Collaboration (2024 IMCP Workshop), São Paulo, Brazil, 23-27 September 2024 (https://merino.mit.edu/news/international-workshop-monitoring-geospace-disturbances-ground-2024-imcp/)

2024 IMCP Workshop

(9) 6th IMAOC school (ISWI Maghreb Africa West and Central): Space Weather Summer School - Physics and use of tools, National Meteorological Agency at Conakry in Guinea, 14-25 October 2024 (www.girgea.org)

6th IMAOC school (ISWI Maghreb Africa West and Central)

3.2 SCOSTEP VISITING SCHOLAR (SVS) PROGRAM

The objective of the SVS program is to provide training to graduate students from developing countries in established laboratories of solar-terrestrial physics for periods of 1 to 3 months. Eligibility for the SVS program is open to applicants from all countries but with an emphasis on applicants from developing countries. The program is open to Masters and PhD students with the requirement that the recipient has not received a PhD at the time of application to the program. SCOSTEP supports round-trip ticket for the students and the host institutions support cost to stay for 1-3 months for these students. Selection of successful SVS applicants is carried out by the SCOSTEP's SVS Selection Committee.

In 2024, SCOSTEP received 29 proposals and awarded the following 19 SVS awards.

	Name	Home Institute	Host Institute
1	Huiting Feng	Tongji University, Shanghai, China	Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Nagoya, Japan
2	Akash Kumar	Department of Physics, Indian Institute of Technology Roorkee, Roorkee, Uttarakhand, India	Leibniz Institute of Atmospheric Physics (IAP) at the University of Rostock, Germany
3	Moheb Yacoub Saad	Egypt-Japan University of Science and Technology(E-JUST), Egypt	Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Nagoya, Japan
4	AMADI BRIANS CHINONSO	National Institute for Space Research (INPE), Brazil	Goddard Space Flight Center, NASA, Greenbelt, MD, USA
5	Ashutosh Pattnaik	Astronomical Observatory of the Jagiellonian University, Krakow, Poland	Goddard Space Flight Center, NASA, Greenbelt, MD, USA
6	Karla Franchesca Lopez Araujo	Mackenzie Presbyterian University, São Paulo, Brazil	Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Nagoya, Japan

7	Dmitry Grankin	Department of Physics of the Earth, St. Petersburg State University, Saint Petersburg, Russia	Mackenzie Presbyterian University, São Paulo, Brazil
8	Luiz Fillip Rodrigues Vital	National Institute for Space Research (INPE), Brazil	Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Nagoya, Japan
9	Lynne Githio	Egypt-Japan University of Science and Technology(E-JUST), Egypt	Dept. of Earth and Planetary Science Faculty of Science, Kyushu University, Japan
10	Stephen Tete	Egypt-Japan University of Science and Technology(E-JUST), Egypt	School of Earth and Space Sciences, University of Science and Technology of China
11	Trunali Anil Shah	Indian Institute of Geomagnetism (IIG), New Panvel, Navi Mumbai, India.	Goddard Space Flight Center, NASA, Greenbelt, MD, USA
12	Justice Allotey Pappoe	Egypt-Japan University of Science and Technology(E-JUST), Egypt	International Research Center for Space and Planetary Environmental Science (i-SPES), Kyushu University, Japan
13	Pelin Iochem	German Aerospace Center, Institute for Solar-Terrestrial Physics, Neustrelitz, Germany	University of Oulu, Oulu, Finland
14	Ankita Manjrekar	Indian Institute of Geomagnetism(IIG), New Panvel, Navi Mumbai, India.	Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA
15	Samriddhi Sankar Maity	Joint Astronomy Programme (JAP), Indian Institute of Astrophysics and Indian Institute of Science, Bengaluru, India	Goddard Space Flight Center, NASA, Greenbelt, MD, USA

16	Yusha'u Muhammad Sulaiman	Kebbi State University of Science and Technology, Aliero, Nigeria	South African National Space Agency, Republic of South Africa
17	Ayushi Nema	Sardar Vallabhbhai National Institute of Technology Surat, Gujarat, India	Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Nagoya, Japan
18	Ryoma Matsuura	University of California, Los Angeles, LA, USA	Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Nagoya, Japan
19	Ipsita Katual	Indian Institute of Geomagnetism(IIG), New Panvel, Navi Mumbai, India.	Goddard Space Flight Center, NASA, Greenbelt, MD, USA

This is a very competitive program of SCOSTEP. As such, we invite worldwide laboratories to consider hosting students in the future. SCOSTEP provides the airfare for SVS awardees. The host laboratory is responsible for living expenses, visa fees, and other incidentals. For more information, contact Dr. Kazuo Shiokawa (shiokawa at nagoya-u.jp) or Dr. Keith Groves (keith.groves at bc.edu).

The full requirements together with the application procedure and list of host laboratories are available on the website: https://scostep.org/svs/

3.3 SCOSTEP ONLINE CAPACITY BUILDING LECTURES

SCOSTEP is holding online lectures for capacity building of students and young scientists since January 2021 during and after the COVID-19 pandemic. These online lectures provide both basic background and an introduction to the latest scientific topics of solar-terrestrial physics to students and young scientists of all countries. Their duration will be one hour and presented by one speaker.

There was one online capacity-building lectures (20th) in 2024 as follows. The numbers at the end show the numbers of real-time participants/registration. The recorded video of the lectures is available from the SCOSTEP website at https://scostep.org/capacity-building-lectures/.

#20 Topic: Exploring mesoscale dynamics in the mesosphere and lower thermosphere with multistatic specular meteor radars
Speaker: Jorge L. Chau, Leibniz Institute for Atmospheric Physics, Kuhlungsborn, Germany
Date/time: January 25 (Thu), 2024, 14:00-15:00 UTC (65/134)

4. SCOSTEP's CURRENT SCIENTIFIC PROGRAM – PRESTO

SCOSTEP's scientific program PRESTO (Predictability of the Variable Solar-Terrestrial Coupling) is going on for the interval of 2020-2024. PRESTO is a science program that seeks to improve the predictability of energy flow in the integrated Sun-Earth system on times scales from a few hours to centuries through promoting international collaborative efforts. PRESTO is the latest program of SCOSTEP, following a number of programs such as CAWSES (2004-2008), CAWSES-II (2009-2013) and VarSITI (2014-2018).

The PRESTO program organizes/supports meetings and database developments. During the 5-year duration of the PRESTO program, it organized/supported 36 meetings, 14 databases, and 1 campaign. SCOSTEP distributes SCOSTEP/PRESTO Newsletter every three months (20 issues in 5 years). SCOSTEP/PRESTO online seminars (25 seminars in 5 years) were also organized to deliver the latest scientific topics and/or instructive review presentations of solar-terrestrial physics that are related to the PRESTO Program.

4.1 PRESTO MEETINGS

The 2nd full face-to-face/in-person meeting of the PRESTO program was held as the PRESTO 2024 workshop in São Paulo, Brazil, in conjunction with the São Paulo School of Advanced Science on Solar Activity and Space Weather from November 11-22, 2024. The main venue was Mckenzie University, although one day of the PRESTO workshop was held at INPE, the Brazilian National Space Research Institute. 97 attendees from 22 countries participated in the activity. PRESTO leadership played a significant role in organizing speakers for school and the workshop, and the Chair and Co-Chairs of PRESTO attended the workshop. Primary funding, which supported students, came from a grant to Mckenzie University from FAPESP (Fundaco de Amparo àPesquisa do Estado de Sao Paulo). Additional funding came from PRESTO and INPE.

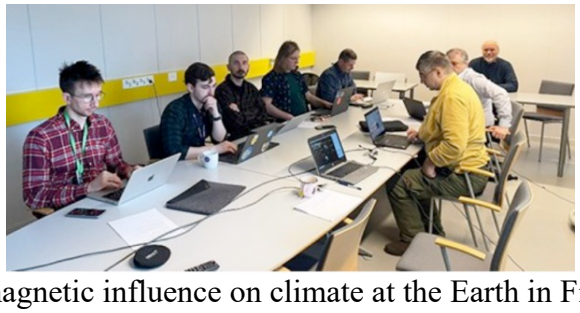
Participants of the PRESTO 2024 workshop in São Paulo, Brazil

In addition, the following 14 meetings were held in association with the PRESTO program. Five capacity-building schools listed in Section 3.1 were also supported in relevance with the PRESTO program. SCOSTEP financially supported these meetings.

title	location	country/region	dates
European Space Weather Week	São Francisco Congress Centre, Coimbra	Portugal	2024 Nov 4-8
Solar cycle variability: From understanding to making prediction	ARIES Nainital	India	2024 Oct 14-18
The Ninth International Space Climate Symposium (SC9)	Nagoya University	Japan	2024 Oct 1-4
11th VERSIM Workshop	Village at Breckenridge, Colorado (a resort and conference center)	USA	2024 Sep 30 - Oct 4
16th International Workshop on Technical and Scientific Aspects of iMST Radar and Lidar (MST16/iMST3)	University of Rostock	Germany	2024 Sep 9-13
17th European Solar Physics Meeting	Turin	Italy	2024 Sep 9-13
International Colloquium on Equatorial and Low Latitude Ionosphere (ICELLI) 2024	United Nations African Regional Centre for Space Science and Technology Education (UNARCSSTEE), Obafemi Awolowo University, Ile-Ife	Nigeria	2024 Sep 2-6
Second Solar MHD conference: Informing MHD simulations from observations	University of La Laguna	Spain	2024 Aug 25-29 or Sep 1-5
16th yearly Workshop “Solar Influences on the Magnetosphere, Ionosphere, and Atmosphere”	Primorsko	Bulgaria	2024 Jun 3-7
The Combined 9th Meeting on Vertical Coupling in the Atmosphere-Ionosphere System (VCAIS) and the 6th ANtarctic Gravity	University of New Brunswick, Fredericton, New Brunswick	Canada	2024 Jun 2-7

Wave Instrument Network Meeting (ANGWIN)			
12th International Workshop on Long-Term Changes and Trends in the Atmosphere	Universidade de Vigo, Ourense, Galicia	Spain	2024 May 6-10
IAU Symposium 388: Solar and Stellar Coronal Mass Ejections	Jagiellonian University, Krakow, (Astronomical Observatory)	Poland	2024 May 5-10
XIV Latin American Conference on Space Geophysics (COLAGE) 2024	Autonomous University of Nuevo León (UANL)	Mexico	2024 Apr 8-13
Geomagnetic influence on climate at the Earth	Helsinki	Finland	2024 Mar 5-7

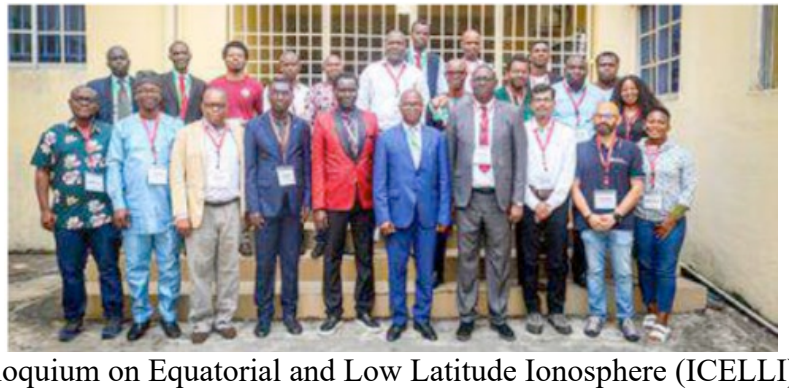
IAU Symposium 388: Solar and Stellar Coronal Mass Ejections in Poland



Geomagnetic influence on climate at the Earth in Finland

The Combined 9th Meeting on Vertical Coupling in the Atmosphere-Ionosphere System (VCAIS) and the 6th ANtarctic Gravity Wave Instrument Network Meeting (ANGWIN) in Canada

16th Workshop “Solar Influences on the Magnetosphere, Ionosphere, and Atmosphere” in Bulgaria



International Colloquium on Equatorial and Low Latitude Ionosphere (ICELLI) 2024 in Nigeria

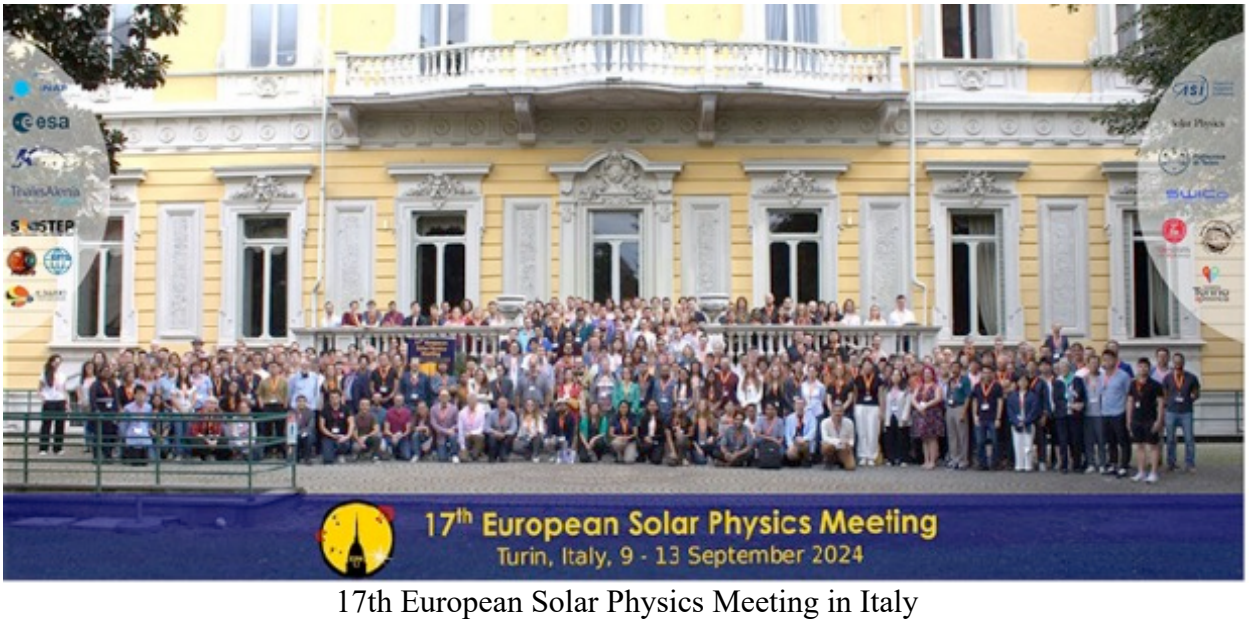
XIV Latin American Conference on Space Geophysics (COLAGE) 2024 in Mexico

Second Solar MHD conference: Informing MHD simulations from observations in Spain

The Ninth International Space Climate Symposium (SC9) in Japan

Solar cycle variability: From understanding to making prediction in India

11th VERSIM Workshop in USA



17th European Solar Physics Meeting in Italy

4.2 PRESTO DATABASE CONSTRUCTIONS

The PRESTO officers decided to support the following four databases in association with the PRESTO program. SCOSTEP provided partial support for these database constructions.

Title	Location of the Event	Country
Creation of an open database of original and annotated sunspot drawings of the seventeenth and eighteenth centuries, accompanied by a catalog of sunspot data extracted from these historical observations	Saint-Petersburg State University	Russia
Upgrade of the international GLE database by including records from non-standard detectors	University of Oulu	Finland
InnerShock: A comprehensive database of shock waves observed in the inner heliosphere	University of Helsinki	Finland
An Active Region Database for Solar Cycle Variability and Prediction	School of Space and Environment, Beihang University	China

4.3 SCOSTEP/PRESTO NEWSLETTERS

SCOSTEP has produced SCOSTEP/PRESTO Newsletters in 2024 every three months in January, April, July, and October. To access the newsletters, please visit the website: https://scostep.org/newsletter-archive/.

Top pages of the SCOSTEP/PRESTO Newsletter published in 2024

4.4 SCOSTEP/PRESTO ONLINE SEMINARS

Since May 2020, SCOSTEP/PRESTO have organized a series of online seminars that deliver the latest scientific topics and/or instructive review presentations of solar-terrestrial physics that are related to SCOSTEP's PRESTO Program. The seminars are open to scientists and students in all countries. The seminar speakers are invited by the PRESTO Steering Committee. They are widely announced through relevant mailing lists including the SCOSTEP-all mailing list and the SCOSTEP website at https://scostep.org.

The speakers featured in 2024 include the following. The numbers at the end show the numbers of real-time participants/registration. The recorded video of the seminars is available from the SCOSTEP website at https://scostep.org/online-seminar-series/.

#19 Title: Climate implications of solar irradiance and energetic particles: my way in science
Author: Dr. Eugene Rozanov (SCOSTEP Fellow, PMOD/WRC, Davos, Switzerland)
Date and Time: January 23, 2024, 13:00-14:00 UT (86/168)

#20 Title: Response of High-latitude Surface Climate to the Variation of Solar Spectral Irradiance: sensitivity studies for a Bottom-up Mechanism
Author: Dr. Xianglei Huang (University of Michigan, USA)
Date and Time: February 13, 2024, 22:00-23:00 UT (24/113)

#21 Title It's YES for NO, O/N2 and e: Perturbative and transport effects by gravity waves in the mesosphere, thermosphere and ionosphere
Author: Dr. Hanli Liu (High Altitude Observatory, NCAR, USA)
Date and Time: April 29, 2024, 23:00-24:00 UT (45/148)

#22 Title Space Weather Consequences of a Weak Heliospheric State
Author: Dr. Nat Gopalswamy (SCOSTEP Fellow, NASA Goddard Space Flight Center, Greenbelt, MD 20771, USA)
Date and Time: July 30, 2024 (Tue), 13:00-14:00 (77/173)

#23 Title Upper Limit of Earth's Outer Radiation Belt Electron Fluxes: How Intense Can It Get and Why?
Author: Dr. Man Hua (SCOSTEP Distinguished Young Scientist Award 2024, UCLA, Los Angeles, USA)
Date and Time: September 23, 2024 (Mon), 22:00-23:00 UT (15/69)

#24 Title Structure and dynamics of the heliosphere – a better understanding for better Space Weather forecasting
Author: Dr. Manuela Temmer, Institute of Physics, University of Graz, Austria
Date and Time: October 9, 2024 (Wed), 11:00-12:00 UT (83/234)

#25 Title: Solar Eruptions: Initiation, Propagation and Their Earth Impact
Author: Dr. Jie Zhang (SCOSTEP Distinguished Scientist Award 2024, George Mason University, Virginia, USA)
Date and Time: November 8, 2024 (Fri), 15:00-16:00 UT (49/170)

5. SCOSTEP's NEXT SCIENTIFIC PROGRAM – COURSE: CROSS-SCALE COUPLING PROCESSES IN THE SOLAR-TERRESTRIAL SYSTEM

SCOSTEP runs long-term (4-5 years) international interdisciplinary scientific programs of solar-terrestrial physics relevant to ISC scientific bodies. Recent examples of SCOSTEP scientific programs are CAWSES-I and -II (2004-2013), VarSITI (2014-2018), and PRESTO (2020-2024). In order to define the next scientific program (NSP) after PRESTO, SCOSTEP has formed the NSP committee on February 2024. The NSP committee members are:

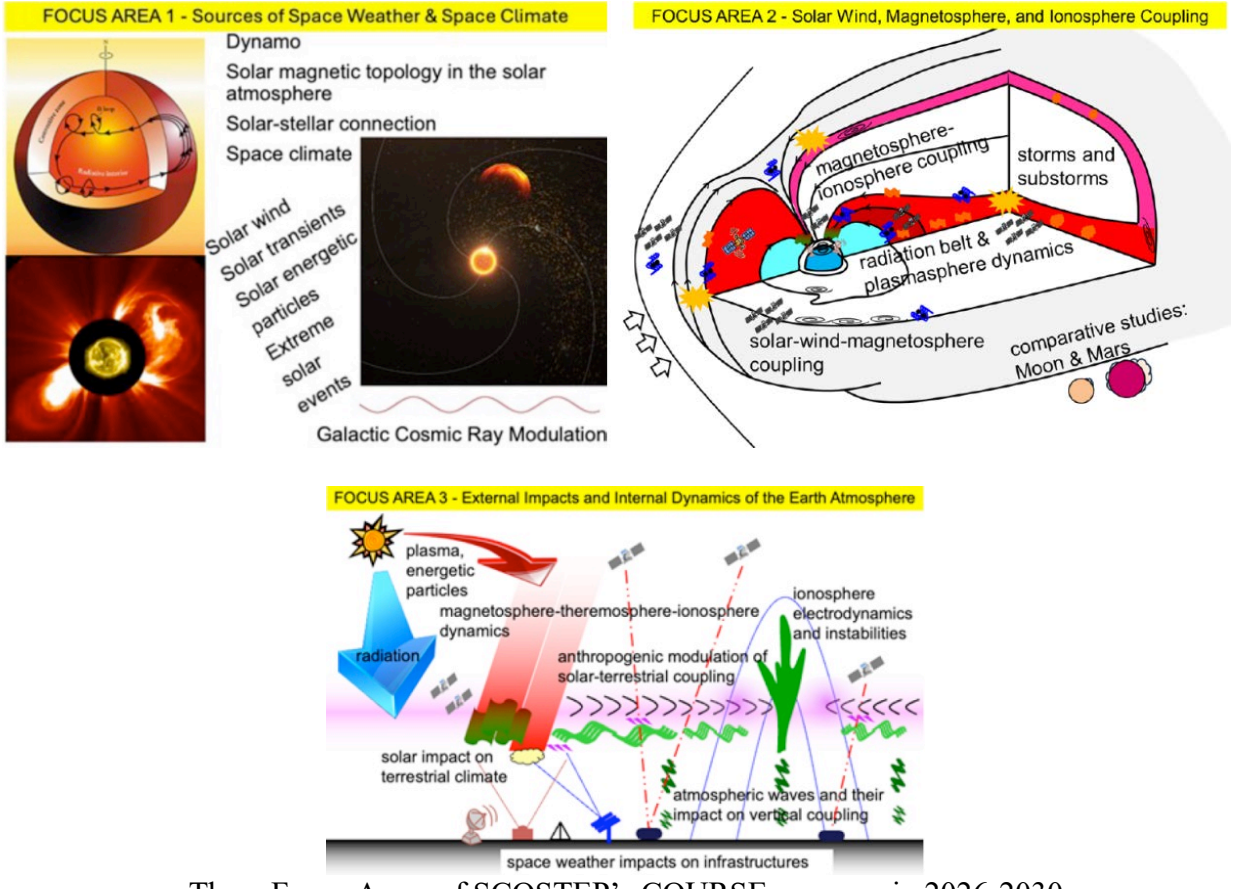
- Carine Briand, Paris Observatory, LESIA, France
- John Bosco Habarulema, SANSA, South Africa
- Natalie Krivova, Max Planck Institute for Solar System Research, Germany
- Kanya Kusano, ISEE, Nagoya University, Japan
- Monica Laurenza (chair), INAF, Italy
- Hanli Liu, NCAR, USA
- Maria Graciela Molina, FACET – UNT, Argentina
- Hilde Nesse, University of Bergen, Norway
- Jana Šafránková, Charles University, Czech Repub-lic
- Jie Zhang, George Mason University, USA
- Qiugang Zong, Macau University of Science and Technology & Peking University, China

The NSP committee had two face-to-face meetings in Nagoya, Japan, on 18-21 June 2024 and in Rome, Italy on 14-17 October 2024 to discuss the next scientific program. Ideas and concise white papers from the solar terrestrial physics community were also collected. Finally the NSP committee has identified cross-scale coupling as the overarching theme for conducting and promoting coordinated research and outreach activities in the upcoming period 2026-2030.

The NSP Committee meeting on 18-21 June 2024 at ISEE, Nagoya Univ., Japan

The NSP Committee meeting on 14-17 October 2024 in INGV, Rome, Italy

The new program is called COURSE: Cross-scale cOUpling pRocesses in the Solar-tErrestrial system, and is organized in three main scientific Focus Areas: 1) Sources of Space Weather and Space Climate: 2) Solar wind, Magnetosphere, and Ionosphere coupling; 3) External impacts and internal dynamics of the Earth atmosphere. For each Focus Area the NSP Committee has identified: 1) long-standing goals, i.e., key questions persistent through SCOSTEP scientific programs; and 2) objectives, i.e., precise outcomes that can be addressed over the 5-year program duration, which contribute to achieving the goals over the long term. Moreover, the Committee envisions the implementation of the program through: identified novel methods, including machine learning (ML) and Artificial Intelli-gence (AI) techniques; integrated models; new missions; the combination of multipoint in-situ data with ground observations; improved metadata; and adoption of Findable, Accessible, Interoperable, and Reusable (FAIR) principles. This short article describes a brief overview of the COURSE program. More detailed descriptions will be published later in a refereed journal.



Three Focus Areas of SCOSTEP's COURSE program in 2026-2030

6. SCOSTEP BUREAU MEETINGS

Two SCOSTEP Bureau meetings were held in 2024 on 2 July and 2 December. The meeting was held virtually via a Zoom video conferencing. The following items were discussed during these meetings.

Agenda of the Bureau meeting on 2 July 2024:

Discussion/Decision Items

1. Approval of the minutes of the last Bureau meeting
2. Updates of action items from the last Bureau meeting
3. PRESTO updates
4. Letter from NARs: SDR balance issue – updates
5. SCOSTEP Officer Nomination Committee for President/Vice President election
6. Budget status (2023 final; 2024 status; 2025 plan)
7. Membership Committee report

Report Items

8. Reports from participating bodies (COSPAR, IAGA, IAMAS, IAU, IUPAP, SCAR, URSI, WDS)
9. SCOSTEP committee members update
10. SCOSTEP Award Nomination updates
11. Committee for the Next Scientific Program updates
12. Scientific Secretary (SS) Office Updates
13. STP-16 updates
14. Updates of ISC, UN_STSC, UN_COPUOS, and ISWI activities
15. School activities supported by SCOSTEP
16. SCOSTEP online capacity building lectures
17. SCOSTEP Visiting Scholar (SVS) updates
18. SCOSTEP comic book updates

Agenda of the Bureau meeting on 2 December 2024:

Discussion/Decision Items

1. Approval of the minutes of the last Bureau meeting
2. Updates of action items from the last Bureau meeting
3. PRESTO updates
4. Updates of the new SDR selection
5. Member of the Officer Nomination Committee
6. Budget status (2023 final; 2024 status; 2025 plan)
7. Membership Committee report
8. NSP committee updates and procedures to assign officers of the next
9. Plan for the next General Council meeting
10. Honoring of solar-terrestrial physics outreach activities

Report Items

11. Reports from participating bodies (COSPAR, IAGA, IAMAS, IAU, IUPAP, SCAR, URSI, WDS)
12. SCOSTEP Award Nomination updates
13. Scientific Secretary (SS) Office Updates
14. STP-16 updates – timeline
15. Updates of ISC, UN_STSC, UN_COPUOS, and ISWI activities
16. School activities supported by SCOSTEP
17. SCOSTEP online capacity building lectures
18. SCOSTEP Visiting Scholar (SVS) updates
19. SCOSTEP comic book updates
20. Next Bureau meeting at EGU

Details of the minutes from these Bureau meetings are/will be available at https://scostep.org/.

7. 2024 SCOSTEP Awards

SCOSTEP was pleased to host a very successful award program in 2024, which is the Distinguished Science and Young Scientist Awards and the SCOSTEP Fellow for 2024. These awards recognize the societal importance of studies in the field of solar-terrestrial physics and give credit to scientists who contribute significantly to these studies and to SCOSTEP activities. The awards include:

- SCOSTEP Distinguished Science Award – This award is given to recognize an outstanding contribution of a scientist to solar-terrestrial physics.
- SCOSTEP Distinguished Young Scientist Award – This award is given to young scientists who have achieved considerable success in solar-terrestrial physics and have taken an active part in SCOSTEP-related activities.
- SCOSTEP Fellow - This award is given to honor notable members of the solar-terrestrial physics community who have made sustained and/or high-impact contributions to the science of solar-terrestrial physics and/or to SCOSTEP and its scientific programs.

SCOSTEP Award Nomination Committee and Award Selection Committee under the Bureau acted for nomination and selection of the award winners. After careful consideration, the SCOSTEP Award Selection Committee selected that the 2024 Distinguished Science Award is given to Professor Jie Zhang, George Mason University, Fairfax, VA, USA. Professor Zhang has made outstanding contributions to our understanding of the solar eruptions and coronal mass ejections, and their geoeffectiveness. He established a clear solar-terrestrial causal-effect chain for coronal mass ejections. The 2024 SCOSTEP Distinguished Young Scientist Award is given to Dr. Man Hua, UCLA, Los Angeles, CA, USA. Dr. Hua's work has made fundamental contributions to the understanding of the nature and interaction of various plasma waves by using complex numerical simulations of radiation belt dynamics with global diffusion codes and observations of plasma waves from spacecraft such as the Van Allen Probes.

The SCOSTEP Fellow 2024 is given to Dr. Jorge (Koki) Chau, Leibniz Institute of Atmospheric Physics at the University of Rostock, Germany, for his outstanding contributions to the advancement of scientific understanding of terrestrial Aeronomy particularly in low, middle, and high latitudes, and technological innovation on radar imaging techniques, and for an active role in SCOSTEP and capacity building program. Another SCOSTEP Fellow 2024 is given to Dr. Jan Laštovička, Institute of Atmospheric Physics, Czech Academy of Sciences, Czech Republic, for his significant contributions to the scientific understanding of short-term geomagnetic and atmospheric impacts on the ionosphere as well as the long-term trends of the mesosphere-thermosphere-ionosphere system and for active involvement in the SCOSTEP programs.

Information about the awardee is included in the SCOSTEP/PRESTO Newsletter, Volume 40, July 2024 (SCOSTEP Distinguished Science and Young Scientist Awards) and Volume 42, January 2025 (SCOSTEP Fellow 2024). They are available on the website: https://scostep.org/newsletter-archive/. Congratulations to the award winners!

8. OTHER BUSINESS

8.1. SCOSTEP AT UNITED NATIONS

SCOSTEP is a permanent observer of the United Nations (UN) Committee on the Peaceful Uses of Outer Space (COPUOS). On behalf of President, Past President of SCOSTEP, Dr. Nat Gopalswamy, provided a report at the 61th Session of the Scientific and Technical Subcommittee (STSC) of the UNCOPUOS on 6 February 2024, about the updates of SCOSTEP's recent activities. Details can be found at https://www.unoosa.org/oosa/en/ourwork/copuos/stsc/2024/index.html.

8.2. SCOSTEP COMIC BOOK UPDATES

The comic book has been translated into many languages (https://scostep.org/space-science-comic-books/). Some printed versions of comic books were distributed at the above UN COPUOS STSC meeting in February 2024. A new comic book "What is Space Weather?!" has been published in Japanese and English in 2023. A bubble version of this new comic book was also provided to SCOSTEP for translation to other languages. Translation to different languages are still on going at several issues of the comic books.

9. SUMMARY

In summary, the Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) had a busy year in 2024. The year included PRESTO advancements with the 2nd face-to-face PRESTO workshop in Brazil, and many other in-person meetings, together with the highly popular series of online seminars. These activities and the Distinguished Science and Young Scientist Awards and SCOSTEP Fellows resulted in an active and productive year. SCOSTEP looks forward to continued success in 2025 which will be the summarizing year of the PRESTO achievements as well as the year to initiate the new program COURSE for 2026-2030.

Common acronyms:

COURSE	Cross-scale cOUpling pRocesses in the Solar-tErrestrial system
COSPAR	Committee on Space Research
CSIC	Consejo Superior de Investigaciones Científicas
IAA	Instituto de Astrofísica de Andalucía
IAGA	International Association of Geomagnetism and Aeronomy
IAMAS	International Association of Meteorology and Atmospheric Sciences
IAU	International Astronomical Union
ICTP	International Centre for Theoretical Physics
ISC	International Science Council
ISEE	Institute for Space-Earth Environmental Research
ISWI	International Space Weather Initiative
IUGG	International Union of Geodesy and Geophysics
IUPAP	International Union of Pure and Applied Physics
JSPS	Japan Society for the Promotion of Science
NASA	National Astronautics and Space Administration
NCAR	National Center for Atmospheric Research
PRESTO	Predictability of the Variable Solar-Terrestrial Coupling
SCAR	Scientific Committee on Antarctic Research
SCOSTEP	Scientific Committee on Solar-Terrestrial Phycis
STP	Solar-Terrestrial Physics
UN COPUOS STSC	United Nations (UN) Committee on the Peaceful Uses of Outer Space (COPUOS) Science and Technical Subcommittee (STSC)
URSI	International Union of Radio Science