

# SCOSTEP/PRESTO NEWSLETTER

Vol. 21, December 2019

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### Article 1:

## SCOSTEP Executives and Bureau Members

**Kazuo Shiokawa**

Center for International Collaborative Research (CICR),  
Institute for Space-Earth Environmental Research (ISEE),  
Nagoya University, Nagoya, Japan



Kazuo Shiokawa

The elections for the new SCOSTEP Executives took place during the IUGG assembly in Montreal, Canada on July 13, 2019. Dr. Kazuo Shiokawa, of Nagoya University in Japan, was elected President. Professor Daniel March, of the National Center for Atmospheric Research (USA) and the University of Leeds (UK) was elected Vice President. Dr. Nat Gopalswamy, who served SCOSTEP as President since 2011, will continue to serve as Past-President. Patricia Doherty, of Boston College, was appointed as the Scientific Secretary on July 1, 2019.

The SCOSTEP Bureau is comprised of the Executives together with rep-

representatives of participating organizations. The representatives are appointed by the Secretary General of their organizations. For the quadrennial beginning in July 2019, the bureau members include:

Kazuo Shiokawa (President), Daniel Marsh (Vice President), Nat Gopalswamy (Past President), Patricia Doherty (Scientific Secretary, ex-officio), Yoshizumi Miyoshi (COSPAR), Renata Lukianova (IAGA/IUGG), Peter Pilewski (IAMAS), Kyung-Suk Cho (IAU), and Prasad Subramanian (IUPAP), Annika Seppälä (SCAR), Jorge Chau (URSI), Aude Chambodut (WDS).



Figure 1. The 2019-2022 SCOSTEP Bureau.

## Article 2:

**Message from the Newly Elected SCOSTEP President****Kazuo Shiokawa**Center for International Collaborative Research (CICR),  
Institute for Space-Earth Environmental Research (ISEE),  
Nagoya University, Nagoya, JapanKazuo  
Shiokawa

It is really honorable for me to serve as the President of SCOSTEP. I will do my best to serve various SCOSTEP efforts to promote solar terrestrial physics (STP). The scientific field of solar-terrestrial physics is rapidly changing, mainly because of expansion of human activities into space and because of growing interest in Earth's climate change. The original scientific interest and knowledge are going to be applied to various applications, as represented by the terminologies of "space weather" (short-term variability) and "space climate" (long-term variability). In this sense, various efforts have been made in recent years (1) to understand the physical mechanisms that cause the observed phenomena and (2) to predict the phenomena that affects human life. For this understanding and prediction of the variability of the sun-earth system, the connection from the sun to the earth, and from the earth surface to the middle and upper atmosphere, and to geospace is of essential importance.

Under the International Science Council (ISC), SCOSTEP is the only organization to deal with this sun-earth connection. I will serve on this point to encourage more communication among scientists in different disciplines and regions from the sun to the earth. I would like to encourage this communication by operating mailing lists, the website, and newsletters, as well as promoting interdisciplinary symposia, conferences and workshops under SCOSTEP. The participating bodies of SCOSTEP consist of COSPAR, IAU, IUGG (IAGA and IAMAS), IUPAP, SCAR, URSI, and WDS. This structure of SCOSTEP also allows coordination of the wide scientific area related to solar-terrestrial physics. I would like to stimulate collaboration with these participating bodies by promoting joint sessions and symposia.

The uniqueness of SCOSTEP is to launch international / interdisciplinary multi-year programs on the sun-earth relationship, such as CAWSES, CAWSES-II and VarSITI. This is very different from other participating bodies of SCOSTEP. Through this program, SCOSTEP can address the changing situation of the solar-terrestrial system, providing a timely platform for the community to work together. The VarSITI

(Variability of the Sun and Its Terrestrial Impact, 2014-2018) focused on the decreasing trend of solar activities and its consequences on earth. The next program, PRESTO – PREDictability of variable Solar-Terrestrial cOUpling, is a timely topic for our community due to the increasing interest on the effect of the variability on human activity in space and on earth's climate. This direction will also introduce new possibilities for collaboration with the community of space use and applications. I think SCOSTEP should encourage such collaboration, for example, with the International Space Weather Initiative (ISWI) of the United Nations (UN) Committee on the Peaceful Uses of Outer Space (COPUOS) and other bodies related to space use and climate change.

Through my past experiences of field measurements and school organizations in developing countries, I feel that governments in developing countries are gradually understanding the importance of space weather research. This is due to their increased use of satellite signals for communication and navigation applications with the awareness that ionospheric plasma bubbles can degrade these systems significantly. Under these circumstances, capacity building activities led by SCOSTEP are getting more important for young scientists in the developing countries. SCOSTEP will continue to encourage more capacity-building activities, by coordinating/supporting international schools, operating the SCOSTEP visiting scholar (SVS) programs for students and young scientists, and distributing a comic series on solar-terrestrial sciences.

Finally, I would like to point out the importance of database construction and open data policies in solar-terrestrial physics. Since solar-terrestrial physics deals with global-scale phenomena and relies significantly on remote-sensing and in-situ techniques; international collaboration and exchange of various different types of data are essentially important to understand the physical mechanisms of the phenomena. In that sense, we encourage development of user-friendly databases and data analysis tools as well as efforts of keeping long-term data quality in collaboration with the World Data System (WDS).

## Transition of the Office of the Scientific Secretary

Patricia Doherty

Institute for Scientific Research (ISR), Boston College,  
Boston, MA, USA



Patricia Doherty

I am honored to have been appointed as the Scientific Secretary of SCOSTEP. SCOSTEP's dedication to outreach and capacity building together with exceptional excellence in scientific programs such as CAWSES, CAWSES-II and VarSITI are activities that I have admired for quite some time. Having both a scientific background in space weather and considerable outreach and management experience, I look forward to using my skills to support and advance SCOSTEP over the next quadrennial.

Over the last six months, I have worked closely with Dr. Marianna Shepherd to transfer the secretariat's office from York University in Toronto, Canada to Boston College in the USA. Dr. Shepherd has done an outstanding job of supporting SCOSTEP as Scientific Secretary from 2010 to mid-2019. She has guided me and shared so much of her expertise in numerous meetings, phone calls and emails over the last 6 months. I thank her personally for her gentle guidance during this transition.

At this time, I have assumed the financial and administrative responsibilities of SCOSTEP. With support from my colleagues at Boston College, we have developed mailing lists for various committees and SCOSTEP participants. We have also established a new website based at Boston College ([www.bc.edu/scostep](http://www.bc.edu/scostep)). I have opened a nonprofit corporation based in Massachusetts and I am working to gain non-profit status for federal tax purposes. I have also reached out to our National Adherent Representatives and Participating bodies to assure that we are in good communication. Finally, the first SCOSTEP Bureau meeting with the new leadership was held in Boston in September. It was wonderful to talk with the many experts supporting SCOSTEP.

I look forward to working with all the participants of SCOSTEP. Please contact me at any time if you have any questions or suggestions. I can be reached at: [Patricia.Doherty\\_at\\_bc.edu](mailto:Patricia.Doherty_at_bc.edu).

## Article 4:

# Bureau Meeting Report

K. Shiokawa<sup>1</sup> and P.Doherty<sup>2</sup><sup>1</sup>Center for International Collaborative Research (CICR),  
Institute for Space-Earth Environmental Research (ISEE),  
Nagoya University, Nagoya, Japan<sup>2</sup>Institute for Scientific Research (ISR), Boston College, Boston, MA, USA

Patricia Doherty

Kazuo  
Shiokawa

The first meeting of the SCOSTEP Bureau meeting with new members was held at Boston College, USA, on September 11, 2019. Members shown in the picture below were on-site, while other members attended via WebEx (Renata Lukianova, Annika Seppälä, Prasad Subramanian, and Peter Pilewskie). Jorge Chau and Aude Chambodut were not able to attend due to other commitments. With 9 of the 11 members of the bureau participating in the meeting, a majority quorum was achieved. The agenda and minutes from the last bureau meeting were provided to the bureau in advance of the meeting.



**Figure 1. On-site attendees of SCOSTEP Bureau members on September 11, 2019. From left to right, Kyung-Suk Cho, Daniel Marsh, Patricia Doherty, Kazuo Shiokawa, Nat Gopalswamy, and Yoshizumi Miyoshi.**

Bureau discussions included:

- Introduction of the new President, Vice President, Secretary, and Bureau members
- Approval of the minutes from previous Bureau meeting of May 7, 2019
- Action items from previous Bureau meeting
- Eighteen action items from the previous Bureau meeting were checked. Some are transferred to the action items of the current Bureau.
- An update on the transition of the Scientific Secretary's office from Marianna Shepherd of York University to Patricia Doherty at Boston College was discussed. A full update is provided in Section 3 of this newsletter.

- Financial Report

The proposed and actual budgets for SCOSTEP in the years 2016 through 2019 with a proposed budget for 2020 was presented. Patricia Doherty pointed out that SCOSTEP's income is limited to the adherent country subscriptions with a total of \$110,000 anticipated each year. At this time, there are a number of the adherents with unpaid subscriptions for 2019. Patricia will contact the adherent representatives to bring things up to date. Additional discussion included that we should try to increase the number of adherent countries for SCOSTEP. The income and expenses of 2018-2020 are reported and approved.

- Status of the SCOSTEP Visiting Scholar (SVS) program

Discussion on the SVS program included assigning a budget of \$10,000 to the program for 2020. Additional discussion was related to the eligibility to apply for the SVS opportunity. In the past, it was limited to students and young scientists from developing countries.

After bureau member discussion, the bureau approved the following motion.

- The SVS program be open to all countries but with an emphasis on developing countries.
- The program will be limited to Masters and PhD students with the requirement that the recipient has not received a PhD at the time of application to the program.

The list of hosts for the SVS program was also displayed. There are currently 13 institutions listed in support of the SVS program. Two hosts have provided letters or signed MoUs describing their commitment to the program. Bureau decided to contact the SVS hosts with a request to provide a letter of commitment.

More information on the SVS program for 2020 is included in Article 6 of this newsletter.

- PRESTO

PRESTO (PREdictability of the variable Solar-Terrestrial cOUpling) is the next SCOSTEP scientific program. The detailed PRESTO presentation is available at:

[http://www.issibj.ac.cn/Publications/Forum\\_Reports/201404/W020190620592906717714.pdf](http://www.issibj.ac.cn/Publications/Forum_Reports/201404/W020190620592906717714.pdf)

PRESTO is comprised of 3 Pillars:

Pillar 1. Sun, interplanetary space and geospace

Pillar 2. Space weather and the Earth's atmosphere

Pillar 3. Solar activity and its influence on the climate of the Earth System

- The Bureau decided to change the interval for PRESTO from 2019–2023 to 2020-2024.
- The Bureau also discussed that PRESTO represents Solar-terrestrial science for the benefit of humanity, and decided the mission of PRESTO as “To identify predictability of the variable solar-terrestrial coupling performance metrics through modeling, measurements, and data analysis and to strengthen the communication between scientists and users”.
- At this meeting, significant discussion was dedicated to the selection of the candidates of PRESTO chairs and the co-leaders of the 3 Pillars. It was proposed to invite 1 chair and 2 co-chairs for the PRESTO program. The bureau also discussed possible candidates for the Pillar co-leaders. A list of candidates was assembled for discussion with the PRESTO chairs.
- It was discussed that we all should promote PRESTO sessions at upcoming meetings such as ESWW, NOAA-SWW, AOSWA, ISWI, and others. This will also be a prime task of the co-chairs and Pillar co-leaders.
- Finally, it was suggested that a SCOSTEP/PRESTO introductory video be created. This will have to wait for the appointment of PRESTO chairs and Pillar co-leaders.
- SCOSTEP Committees

As all of the committee memberships expired with the new leadership of SCOSTEP, the committees were discussed with suggestions for new appointments and new committees.

- **Finance Committee:** The SCOSTEP President invited Daniel March and Yoshizumi Miyoshi to serve as the Finance Committee. They accepted this role.
- **Awards Selection Committee:** At the last bureau meeting, the candidates were nominated. After the Bureau meeting, the following scientists were agreed to act as the Award Selection Committee members, and the appointment letter was sent to them with for a tenure of four years: Marina Battaglia (chair), Sami Solanki, Ryoichi Fujii, Robert Sych, Nandita Srivastava, Clara Yatini and Jan Lastovicka.
- **SVS Selection Committee:** The Bureau proposed the candidates of the SVS Selection Committee members. After the Bureau meeting, the following scientists were agreed to act as the SVS

Selection Committee members, and the appointment letter was sent to them with for a tenure of four years: John Raymond (chair), Thierry Dudok de Wit, Emilia Kilpua, Irina Mironova, Ivan Dorotovič, Ayman Mahrous and Alejandro Lara

- **Nominating Committee:** This is a new committee proposed and accepted at the last bureau. The purpose of the committee is to provide nominees for the SCOSTEP Awards to revive Honorary Member appointments. The selection of the Nomination Committee member candidates are on-going after the Bureau.
- **Membership Committee for Adherents:** This is a new committee proposed to enhance the adherent country membership for SCOSTEP. The need for new adherents was discussed earlier in this bureau meeting. Members of this committee may include all bureau members including the scientific secretary. The selection of the Membership Committee member candidates is on-going after the Bureau.

#### ● Mailing Lists

The Bureau agreed that SCOSTEP mailing lists should be developed to facilitate communication for SCOSTEP committees and general membership. These mailing lists are to be developed with the support of Boston College. They should include mailing lists for bureau members and executives; national adherent representatives; scientific discipline representatives and a general mailing list that includes all SCOSTEP participants. The general mailing list will be moderated by the President and/or Scientific Secretary. Details on the mailing list are provided in Article 5 of this report.

#### ● Webpage

A new Website has been developed: [www.bc.edu/scostep](http://www.bc.edu/scostep). Information from the previous SCOSTEP website in York University, Canada was transferred to this site. More updates are needed and in-progress.

#### ● Newsletter and PRESTO Newsletter

The Bureau decided to combine the SCOSTEP and PRESTO Newsletter. Mai Asakura of ISEE, Nagoya University, (former secretary of VarSITI Newsletter) has offered to design a new format for the combined newsletter.

#### ● Capacity Building Activities

- Currently SCOSTEP supports a number of schools with about \$2000 each. However, the procedure for application is not well defined. After much discussion, the Bureau decided to develop a formal procedure for school support applications and to consider a SCOSTEP/PRESTO school in 2022.
- It was also suggested that SCOSTEP collaborate with ISWI schools. ISWI will host a school in India in 2020.
- It was also suggested that we create post cards that advertise the comic books and provide a link to

download them.

- New Scientific Discipline Representatives (SDRs)

SCOSTEP currently has over 60 Scientific Discipline Representatives. Nearly half of them have completed 8 years of service and will rotate off. The Bureau will consider replacements for the retiring SDRs.

- SCOSTEP and UN/COPUOS

UN/COPUOS is the UN Committee on the Peaceful Uses of Outer Space. It was discussed that the President, or another representative of SCOSTEP, should join the UN scientific and technical subcommittee (STSC) in February 2020 to give a statement on the activities of SCOSTEP.

- STP-15 Preparations

The next STP meeting will be held on February 21-25, 2022 in Alibag, India. The Local organizing chair is Dr. S. Gurubaran of the Indian Institute of Geomagnetism. Bureau members were asked to include the STP

-15 into the meeting calendars of their organizations. The Bureau agreed to assign \$20K for seed funding to the STP-15 LOC.

- Donation System Development

Bureau agreed to receive donations to support SCOSTEP activities. This can include donations to support young scientists at conferences. We could make it simple on the website to receive a donation. We can also establish a scholarship with a donor's name. When appropriate system is established, we will announce it to the community.

- Schedule of Bureau and General Council Meetings

Discussion was included to determine the best time and place for future bureau and general council meetings. We would like to host these meetings to facilitate participation by the full bureau. It will be decided after receiving preferences from Bureau members.

#### Article 5:

## SCOSTEP Mailing Lists

### Patricia Doherty

Institute for Scientific Research (ISR), Boston College,  
Boston, MA, USA



Patricia Doherty

As described in the Bureau report (Article 4), mailing lists have been established to facilitate communication with the various committees and all SCOSTEP participants. Mailing lists for the bureau members, national adherent representatives and scientific discipline representatives have been finalized and members have been notified on the use of those lists. These lists are primarily for communication of the members involved. They include:

- Scostep-bureau\_at\_listserv.bc.edu - for Bureau Members
- Scostep-adherents\_at\_listserv.bc.edu- for National Adherent Representatives
- Scostep-sdr\_at\_listserv.bc.edu - for Scientific Discipline Representatives

- A general mailing list that includes all of the above together with all former participants of VarSITI and SCOSTEP is: scostep-all\_at\_listserv.bc.edu

To send a message to members of this list, simply type the following address in the "To" box of your email platform: scostep-all\_at\_listserv.bc.edu

The submitted e-mail will be moderated by the SCOSTEP President and/or Scientific Secretary, and distributed to the registered members of SCOSTEP. Currently, there are approximately 1000 STP scientists subscribed to this mailing list.

To subscribe/unsubscribe to the scostep-all\_at\_listserv.bc.edu mailing list, please send e-mail to the SCOSTEP Secretariat, Patricia Doherty (patricia.doherty\_at\_bc.edu) with your name, affiliation, and topic of interest.

Article 6:

# SCOSTEP Visiting Scholarship (SVS) Program

**Patricia Doherty (SCOSTEP Scientific Secretary)**  
 Institute for Scientific Research (ISR), Boston College,  
 Boston, MA, USA



Patricia Doherty

The SCOSTEP Visiting Scholar (SVS) program is thriving. In 2019, there were 10 SVS awards. Nine recipients, shown below, are studying with their hosts at various participating institutions. One recipient was not able to accept the award due to other commitments.

At the Bureau meeting held in September at Boston College, the Bureau voted to dedicate \$10,000 to the SVS program in 2020. The Bureau also voted to modify the eligibility requirements for applications to this very competitive program. The changes are described below:

The SVS program will be open to all countries but with an emphasis on developing countries.

The program will be limited to Masters and PhD students with the requirement that the recipient has

not received a PhD at the time of application to the program.

The full requirements together with the application procedure and list of host laboratories are available on the website: [www.bc.edu/scostep/program/SVS/](http://www.bc.edu/scostep/program/SVS/).

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](mailto:shiokawa_at_nagoya-u.jp)) or Patricia Doherty ([Patricia.Doherty\\_at\\_bc.edu](mailto:Patricia.Doherty_at_bc.edu)).

				
<b>Ms Gilda Gonzalez</b> (Argentina, National University of Tucumán, Tucumán) Tenure: Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Japan	<b>Ms Reetika Joshi</b> (India, Kumaun University, Nainital) Tenure: University of Science and Technology of China, School of Earth and Space Sciences Anhui, China	<b>Ms Edith Liliana Macotela</b> (Finland, University of Oulu, Oulu) Tenure: Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Japan	<b>Dr. Victor Nwankwo</b> (Nigeria, Anchor University, Lagos) Tenure: Centro de Radio Astronomia e Astrofísica Mackenzie (CRAAM), São Paulo, Brazil	<b>Ms Megha Pandya</b> (India, Indian Institute of Geomagnetism, Navi Mumbai) Tenure: NASA – GSFC, USA
				
<b>Mr Ritesh Patel</b> (India, Indian Institute of Astrophysics, Bangalore) Tenure: NASA – GSFC, USA	<b>Mr Ram Singh</b> (India, Indian Institute of Geomagnetism, Navi Mumbai) Tenure: Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Japan	<b>Ms Ange Cynthia Umhire</b> (Rwanda, University of Rwanda – College of Education) Tenure: NASA – GSFC, USA	<b>Mr Francisco Tapia Vazquez</b> (Mexico, Universidad Nacional Autónoma de México) Tenure: Centro de Radio Astronomia e Astrofísica Mackenzie (CRAAM), São Paulo, Brazil	

Figure 1. SVS 2019 Recipients

The following is the recently issued Call for Applications for the 2020 SVS Program.

Dear Colleagues,

The submission of applications for the 2020 SCOSTEP Visiting Scholar (SVS) scholarship is now open.

The SCOSTEP Visiting Scholar (SVS) program is a capacity building activity of SCOSTEP (Scientific Committee on Solar-Terrestrial Physics), which will complement SCOSTEP's new scientific program (PRESTO) and public outreach activities.

SCOSTEP's scientific program, VarSITI (Variability of the Sun and its Terrestrial Impact), ended in 2018. The new scientific program, PRESTO (Predictability of Variable Solar-Terrestrial Coupling), will begin in 2020 for a 5-year duration. The mission of PRESTO is to identify predictability of the variable solar-terrestrial coupling and its performance metrics through modeling, measurements, and data analysis, and to strengthen the communication between scientists and users.

The objective of the SVS program is to provide training to graduate students in well-established solar terrestrial physics institutes, for periods of one to three months. The training will help the awardees advance in their career in solar-terrestrial physics using the technique/skill they learned during the training. SCOSTEP will provide the airfare, while the host institute will provide the living expenses (accommodation, sustenance, ground transportation, visa fees, and other incidentals). Trainees should have their own health insurance or arrange a provision with the host institution.

Note that the eligibility requirements for the SVS program have changed. The new program is now open to

applicants from all countries but with an emphasis on applicants from developing countries. The program is limited to Masters and PhD students with the requirement that the recipient has not received a PhD at the time of application to the program.

Interested candidates should contact one of the SVS program hosts; develop a project and work out the details of the visit. Once the applicant and host agree on a visit, the applicant needs to prepare an application package including the following details of the visit:

- 1) a 2-page proposal of the work to be performed as an SVS awardee
- 2) applicant's curriculum vitae - including expected date of graduation
- 3) dates of the proposed visit
- 4) letter of recommendation from the applicant's supervisor - with verification on the applicant's eligibility
- 5) letter from the host scientist/institution indicating that the work will be mutually beneficial

Send a single pdf file with all of the above to SCOSTEP's Scientific Secretary, Patricia Doherty (patricia.doherty\_at\_bc.edu). **Deadline for applications is February 21, 2020.**

Please contact the host institution well before this deadline, to enable full consideration of your application.

Click to following link for a list of SVS host institutions:

<https://www.bc.edu/content/bc-web/research/sites/institute-for-scientific-research/research/SCOSTEP/scostep--programs/scostep--svs.html>

## Meeting Report 1:

## Capacity Building and Outreach Activities

**Patricia Doherty**

Institute for Scientific Research (ISR), Boston College, Boston, MA, USA



Patricia Doherty

A number of workshops and schools have been supported by SCOSTEP in 2019. The funds for these activities are primarily used to support travel and subsistence for participants in developing nations. The activities held in 2019 to date include:

- African Geophysical Society (AGS) Conference on Space Weather, Cairo Egypt, March 25-28, 2019
- International Space Weather Initiative Workshop, Trieste, Italy, May 20-24, 2019
- VarSITI Closing Symposium, Sofia, Bulgaria, June 10-16, 2019
- Towards Future Research on Space Weather: Concepts and Tools, San Juan, Argentina, July 2-7, 2019
- Seventh Space Climate Symposium, Quebec, Canada, July 8-11, 2019
- Beacon Satellite Symposium, Olsztyn, Poland, August 19-23, 2019
- IRI Workshop, Frederick University in Nicosia, Cyprus, September 2-13, 2019
- 4th Edition of the School of Space Weather IMAO (ICTP-Maghreb Afrique de L-Ouest), Senegal, Africa, October 15-25, 2019

## Meeting Report 2:

## The International Space Weather Initiative Workshop (ISWI)

**Bruno Nava**

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy



Bruno Nava



**Figure 1. Group Photo of Participants.**

ISWI, established in 2009, has proved to provide a framework for collaboration between teams of scientists, serving as an example of remarkable international work in instrument operation, data collection, analysis and publication of scientific results. ISWI has established a platform for bottom-up approach in order to produce space weather literate communities, particularly developing nations, and to work together as a network sharing ideas, information and data, and to create joint projects.

The most recent workshop, held in May 2019 at the Abdus Salam International Centre for Theoretical Physics, included a rich and varied program with a kick-off talk provided by Dr. Dan Baker of the University of Colorado on Global Response to Space Weather. Technical sessions included presentations on (i) space weather instrumentation and data (ii) space weather modeling (iii) regional space weather studies; (iv) solar physics; (v) magnetosphere-ionosphere-thermosphere coupling;

(vi) space weather effects; (vii) international agency space weather activities; (viii) outreach and education; and many more. Overall 62 oral presentations and 36 posters were presented.

A total of 115 scientists from 47 countries attended the workshop. Sponsors included ISWI, ICTP, Boston College, the International Committee on Global Navigation Satellite Systems (ICG), ESA, SCOSTEP, the IUGG and the National Space Research and Development Agency of Nigeria. SCOSTEP support provided travel and subsistence for two young scientists from developing countries.

The presentations made at this workshop can be accessed on the following link:

<http://indico.ictp.it/event/8682/>

## Meeting Report 3:

## The VarSITI Completion General Symposium 2019

**Katya Georgieva**

Space Research and Technologies Institute, Bulgarian Academy of Sciences, Sofia, Bulgaria



Katya Georgieva



Figure 1. Group Photo of Participants.

The VarSITI Completion General Symposium was held in Sofia, Bulgaria from 10 to 14 June 2019. It was attended by 98 participants from 24 countries. The symposium covered the following topics:

- Mechanisms of solar variability and its Earth-affecting manifestations
- Long-term solar variability and its impacts on the heliosphere and the terrestrial system including solar wind, geomagnetic field, and Earth's climate (Space climate)
- Short-term solar variability and Earth-affecting events, and the reaction of the terrestrial system to solar/heliospheric drivers (Space weather)
- Coupling between the Earth's atmosphere and space

under quiet or active Sun

- Sun-Earth related data: definition, maintenance, archiving
- Predictability of the Variable Solar-Terrestrial Coupling (PreSTo): The science behind.

The presentations are freely available online at the symposium's web site <http://newserver.stil.bas.bg/VarSITI2019/>.

The proceeding will be published in a special issue of a JASTP which is also open for contributions on new and interdisciplinary scientific results related to this 5-year VarSITI program.

## Meeting Report 4:

## 4th Edition of the School of Space Weather IMAO, Senegal, Africa

I. Gaye<sup>1</sup> and C. Amory-Mazaudier<sup>2, 3</sup>

<sup>1</sup>University of Thiès, Thiès, Senegal

<sup>2</sup>LPP, CNRS/Ecole Polytechnique/Sorbonne Université/Université Paris-Sud/Observatoire de Paris, Paris, France

<sup>3</sup>T/ICT4D Abdus Salam ICTP, Trieste, Italy



Idrissa Gaye



Christine Amory-Mazaudier



Figure 1. Group Photo from IMAO Workshop.

The IMAO 2019 Space Weather School aimed to strengthen the capacities of young researchers, Master 2 students and PhD students from the Maghreb and West Africa in all the scientific disciplines concerned by 'Space Weather'.

The courses were focused on the Physics of the Sun, the Magnetosphere and the Ionosphere, the Atmosphere / Ionosphere / Magnetosphere and Geomagnetism couplings, but also on Climate Modeling, Ocean Dynamics and the GNSS (Global Navigation Satellite System). The faculty team consisted of professors from the following countries: Algeria, Burkina Faso, Côte d'Ivoire, France, Morocco, Senegal, USA.

33 participants came from 13 countries from Maghreb, West Africa, Central and East Africa: Algeria, Benin, Burkina Faso, Cameroon, Côte d'Ivoire, France, Guinea Conakry, Morocco, Nigeria, RC, DRC, Rwanda and Senegal.

The report of the school is on the website <https://www.girgea.org>.

## Meeting Report 5:

# International Beacon Satellite Symposium, Olsztyn, Poland

**Andrzej Krankowski**  
University of Warmia and Mazury  
in Olsztyn, Olsztyn, Poland



Andrzej Krankowski

The 19th International Beacon Satellite Symposium (BSS2019) was held at the University of Warmia and Mazury in Olsztyn, Poland on 19-23 August, 2019. The BSS symposia are the primary event held triennially by the Beacon Satellite Group of the International Union of Radio Scientists (URSI) Commission G. The Beacon satellite group is interdisciplinary, servicing science, research, application and engineering interests. These interests include all aspects of satellite signals observed on the ground and by receivers on-board satellites. These meetings provide unique opportunities for ionospheric scientists from all over the world to meet and collaborate on the ionospheric effects on radio propagation and space weather.

This most recent BSS symposium was a great success with many sessions dedicated to space weather characteristics and effects; monitoring the ionosphere and space weather with ground and space-based receivers, radio occultation techniques and measurements, advances in ionospheric modeling and much more.

The opening session included welcome remarks by local Olsztyn officials, Dr. Andrzej Krankowski



Figure 1. Group Photo of Participants.

(Chair of the LOC) and Patricia Doherty (URSI, Commission G Chair and Chair of the Beacon Satellite Studies Group). Session descriptions, abstracts and the program can be viewed at the symposium website: [bss2019.uwm.edu.pl](http://bss2019.uwm.edu.pl). A special section with papers presented in this symposium will be produced in the Radio Science Journal.

This event included over 140 scientists from 32 countries. Thanks to the generosity of our sponsors, including SCOSTEP, NSF, URSI, ICG, Boston College and the University of Warmia and Mazury, approximately 50 participants from developing countries received some level of scholarship to defray the cost of their participation in the prestigious event.

## Meeting Report 6:

## VarSITI Summarizing Workshop

K. Shiokawa<sup>1</sup> and K. Georgieva<sup>2</sup>

<sup>1</sup>Center for International Collaborative Research (CICR), Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Nagoya, Japan

<sup>2</sup>Space Research and Technology Institute (SRTI), Bulgarian Academy of Sciences, Bulgaria



Katya  
Georgieva



Kazuo  
Shiokawa

VarSITI Summarizing Workshop was held as an ISEE/CICR international workshop in ISEE, Nagoya University on November 11-15, 2019. This workshop was designed to summarize the 5-year scientific achievements of the SCOSTEP's VarSITI (Variability of the Sun and Its Terrestrial Impact) program (<http://www.varsiti.org/>) of 2014-2018. Ten scientists (project co-leaders and working group leaders of VarSITI) were joined from Bulgaria, Canada, China, Croatia, Japan,



**Figure 1. Participants of the VarSITI Summarizing Workshop.**

New Zealand, and USA, and draft of five review papers were written. These review papers will be submitted to Progress in Earth and Planetary Science (PEPS) for the special issue of VarSITI.

During this workshop, Nat Gopalswamy, the former SCOSTEP President, presented glass plaques to Ms. Mai Asakura, Newsletter secretary of CICR/ISEE for recognition of 5-year editorial support of VarSITI Newsletter, and to Mr. Mitko Danov of SRTI, Bulgaria, for recognition of 5-year support of VarSITI website operation.

## Upcoming meetings related to SCOSTEP

Conference	Date	Location	Contact Information
COSPAR Capacity Building Workshop	Jan. 6-17, 2020	Tamil nadu, India	<a href="https://www.iiap.res.in/COSPAR_KSO2020/">https://www.iiap.res.in/COSPAR_KSO2020/</a>
EGU General Assembly 2020	May 3-8, 2020	Vienna, Austria	<a href="https://www.egu2020.eu/">https://www.egu2020.eu/</a>
AOGS 2020	Jun. 28-Jul. 4, 2020	Hongcheon, Korea	<a href="http://www.asiaoceania.org/aogs2020/public.asp?page=home.html">http://www.asiaoceania.org/aogs2020/public.asp?page=home.html</a>
SCAR	Jul. 31-Aug. 11, 2020	Hobert, Australia	<a href="https://www.scarcomnap2020.org/">https://www.scarcomnap2020.org/</a>
COSPAR 2020	Aug. 15-22, 2020	Sydney, Australia	<a href="https://www.cospar2020.org/">https://www.cospar2020.org/</a>
URSI General Assembly and Scientific Symposium (GASS2020)	Aug. 29-Sep.5, 2020	Rome, Italy	<a href="https://www.ursi2020.org/">https://www.ursi2020.org/</a>
AGU Fall Meeting 2020	Dec. 7-11, 2020	San Francisco, CA, USA	<a href="https://www.agu.org/fall-meeting">https://www.agu.org/fall-meeting</a>
EGU General Assembly 2021	Apr. 25-30, 2021	Vienna, Austria	
IAMAS	Jul. 18-23, 2021	Busan, Korea	<a href="http://baco-21.org/2021/english/main/index_en.asp">http://baco-21.org/2021/english/main/index_en.asp</a>
AOGS 2021	Aug. 1-6, 2021	Singapore	
IAU 2021 General Assembly	Aug. 16-27, 2021	Busan, Korea	<a href="http://www.iauga2021.org/">http://www.iauga2021.org/</a>
IAGA 2021	Aug. 22-27, 2021	Hyderabad, India	<a href="http://www.iaga-iaspei-india2021.in/">http://www.iaga-iaspei-india2021.in/</a>
AGU Fall Meeting 2021	Dec. 13-17, 2021	New Orleans, LA, USA	<a href="https://www.agu.org/fall-meeting">https://www.agu.org/fall-meeting</a>
SCOSTEP's 15th Quadrennial Solar-Terrestrial Physics Symposium (STP-15)	Feb. 21-25, 2022	Alibag, India	
EGU General Assembly 2022	Apr. 3-8, 2022	Vienna, Austria	
COSPAR 2022	Jul. 16-24, 2022	Athens, Greece	<a href="http://www.cosparathens2022.org/">http://www.cosparathens2022.org/</a>
AOGS 2022	Aug. 14-19, 2022	Melbourne, Australia	
AGU Fall Meeting 2022	Dec. 12-16, 2022	Chicago, IL, USA	<a href="https://www.agu.org/fall-meeting">https://www.agu.org/fall-meeting</a>
IUGG 2023	In July, 2023	Berlin, Germany	
AGU Fall Meeting 2023	Dec. 11-15, 2023	San Francisco, CA, USA	<a href="https://www.agu.org/fall-meeting">https://www.agu.org/fall-meeting</a>

## Announcement 1:

## SCOSTEP's 15th Quadrennial Solar-Terrestrial Physics Symposium (STP-15), Alibag, India February 21-25, 2022

K. Shiokawa<sup>1</sup> and S. Gurubaran<sup>2</sup>

<sup>1</sup>Center for International Collaborative Research (CICR),  
Institute for Space-Earth Environmental Research (ISEE),  
Nagoya University, Nagoya, Japan

<sup>2</sup>Indian Institute of Geomagnetism, Navi Mumbai, India



Subramanian  
Gurubaran



Kazuo  
Shiokawa

We are happy to announce that the SCOSTEP's 15th Quadrennial Solar-Terrestrial Physics Symposium (STP-15) will be held at Alibag, India, on February 21-25, 2022 with the local organizing support by the Indian Institute of Geomagnetism.

The Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) organizes the Solar-Terrestrial Physics (STP) symposium once every four years. SCOSTEP is engaged in three major activities: long-term scientific programs, capacity building and public outreach. The scientific programs are of interdisciplinary in nature involving scientists from around the world. They are designed to advance our understanding of the solar-terrestrial relationship using space- and ground-based observations, cutting-edge models and theory. Under what ways the Sun affects the Earth and its environment over various time scales is the underlying theme of the scientific programs pursued under SCOSTEP. Having addressed the variability component during the recently concluded Variability of the Sun and

its Terrestrial Impact (VarSITI) program, the new program of SCOSTEP, Predictability of the variable Solar-Terrestrial Coupling (PRESTO, 2020-2024, [http://www.issibj.ac.cn/Publications/Forum\\_Reports/201404/W020190620592906717714.pdf](http://www.issibj.ac.cn/Publications/Forum_Reports/201404/W020190620592906717714.pdf)), address the predictability component of those phenomena that have impact on the Sun-Earth system as a whole in various time scales.

The STP-15 will aim to gather eminent scientists from solar, magnetospheric, ionospheric and atmospheric physics communities to discuss and deliberate on the cutting-edge sciences pertaining to STP. STP-15 will address the predictability as a focus area in each of the traditional topics deliberated upon during the earlier STP meetings, namely, the mass and radiation chains and intra-atmospheric coupling.

Please put the date of STP-15 into your calendar, and prepare to join in with the new SCOSTEP program PRESTO.

## Announcement 2:

## Predictability of the Variable Solar-Terrestrial Coupling (PRESTO)

Kazuo Shiokawa

Center for International Collaborative Research (CICR),  
Institute for Space-Earth Environmental Research (ISEE),  
Nagoya University, Nagoya, Japan



Kazuo  
Shiokawa

As described by the Bureau report, the next SCOSTEP program PRESTO interval will be 2020-2024. The mission of PRESTO is to identify predictability of the variable solar-terrestrial coupling performance metrics through modeling, measurements, and data analysis and to strengthen the communication between scientists and users. Details of PRESTO were documented in Taikong.

<http://www.issibj.ac.cn/Publications/>

[Forum\\_Reports/201404/W020190620592906717714.pdf](http://www.issibj.ac.cn/Publications/Forum_Reports/201404/W020190620592906717714.pdf)

PRESTO is comprised of 3 Pillars:

Pillar 1. Sun, interplanetary space and geospace

Pillar 2. Space weather and the Earth's atmosphere

Pillar 3. Solar activity and its influence on the climate of the Earth System

Chair, Co-chair, and Pillar Co-leaders of PRESTO have been fixed as below. More details will come in the next issue of this newsletter.

## PRESTO

chair: Ramon Edgardo Lopez (University of Texas at Arlington, USA)

co-chair: Katja Matthes (Helmholtz Center for Ocean Research Kiel and Christian-Albrechts Universität zu Kiel, Germany)

co-chair: Jie Zhang (George Mason University, USA)

### Pillar 1. Sun, interplanetary space and geospace

co-leader: Allison Jaynes (University of Iowa, USA)

co-leader: Emilia Kilpua (University of Helsinki, Finland)

co-leader: Spiros Patsourakos (University of Ioannina, Greece)

### Pillar 2. Space weather and the Earth's atmosphere

co-leader: Loren Chang (National Central University, Taiwan)

co-leader: Duggirala Pallamraju (Physical Research Laboratory, Ahmedabad, India)

co-leader: Nick Pedatella (High Altitude Observatory, National Center for Atmospheric Research, USA)

### Pillar 3. Solar activity and its influence on the climate of the Earth System

co-leader: Odele Coddington (Laboratory for Atmospheric and Space Physics, University of Colorado Boulder, USA)

co-leader: Jie Jiang (Beihang University, China)

co-leader: Eugene Rozanov (PMOD/WRC and IAC ETHZ, Switzerland)

#### Announcement 3:

## 2020 SCOSTEP Distinguished Scientist and Service Awards

Patricia Doherty

Institute for Scientific Research (ISR), Boston College, Boston, MA, USA



Patricia Doherty

Call for nominations for the 2020 SCOSTEP Awards for Distinguished Scientist Distinguished Young Scientist and Distinguished Service has been released.

Recognizing the societal importance of studies in the field of solar-terrestrial physics and willing to give credit to scientists who contribute significantly to these studies and to SCOSTEP activities, the SCOSTEP Bureau has instituted the following awards:

- **SCOSTEP Distinguished Scientist 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 Distinguished Service Award**

This award is given to recognize unique contributions to SCOSTEP-related activities, to realization

of its programs and events. This award is nominally made in odd years. Since no award was made in 2019, it may be made retroactively in 2020.

The SCOSTEP awards are given biennially. The first Distinguished Science Awards were awarded in 2014. The first Distinguished Service Award was given in 2013. The Award Statutes and Procedures are placed on the SCOSTEP web site section "Awards" (<http://www.bc.edu/scostep/programs/awards>).

Award nomination packages (nomination letter and nominee's curriculum vitae) for the Distinguished Awards should be submitted to the SCOSTEP secretariat (Patricia.Doherty\_at\_bc.edu) by no later than February 29, 2020, as a single pdf file. The currently serving SCOSTEP Executive Officers and Bureau Members are not eligible for nomination. The award decision will be made by the SCOSTEP Awards Committee (SAC) and communicated to the Bureau after considering submissions.

***Please consider nominating your deserving colleagues for these prestigious awards.***

The purpose of the SCOSTEP/PRESTO newsletter is to promote communication among scientists related to solar-terrestrial physics and the SCOSTEP's PRESTO program.

**The editors would like to ask you to submit the following articles to the SCOSTEP/PRESTO newsletter.**

Our newsletter has five categories of the articles:

1. Articles— Each article has a maximum of 500 words length and four figures/photos (at least two figures/photos).  
With the writer's approval, the small face photo will be also added.  
On campaign, ground observations, satellite observations, modeling, etc.
2. Meeting reports—Each meeting report has a maximum of 150 words length and one photo from the meeting.  
With the writer's approval, the small face photo will be also added.  
On workshop/conference/ symposium report related to SCOSTEP/PRESTO
3. Highlights on young scientists— Each highlight has a maximum of 200 words length and two figures.  
With the writer's approval, the small face photo will be also added.  
On the young scientist's own work related to SCOSTEP/PRESTO
4. Announcement— Each announcement has a maximum of 200 words length.  
Announcements of campaign, workshop, etc.
5. Meeting schedule

Category 3 (Highlights on young scientists) helps both young scientists and SCOSTEP/PRESTO members to know each other. Please contact the editors if you know any recommended young scientists who are willing to write an article on this category.

**TO SUBMIT AN ARTICLE**

Articles/figures/photos can be emailed to the Newsletter Secretary, Ms. Mai Asakura (asakura\_at\_isee.nagoya-u.ac.jp). If you have any questions or problem, please do not hesitate to ask us.

**SUBSCRIPTION - SCOSTEP MAILING LIST**

The PDF version of the SCOSTEP/PRESTO Newsletter is distributed through the SCOSTEP-all mailing list. If you want to be included in the mailing list to receive future information of SCOSTEP/PRESTO, please send e-mail to "patricia.doherty\_at\_bc.edu" or "sean.oconnell.2 at bc.edu" (replace "\_at\_" by "@" with your name, affiliation, and topic of interest to be included.

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