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* ISWI Newsletter - Vol. 17 No. 007 15 July 2025 *
* Editor: George Maeda, georgemaeda3[at]gmail.com
* Archive of back issues: ISWI Website https://iswi-secretariat.org/
* Send subscription request to: iswisupport@bc.edu
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Dear ISWI Newsletter Subscriber:

Please be reminded that this newsletter has two versions:

[1] Email version -- this gets distributed via email
directly to you but does not have the attachments.
[2] Web version -- this is the full version with attachments.

To view the Web version, go to this web page:
https://iswi-secretariat.org/
and click on "**NEWSLETTERS**".

If you have space-weather-related news or announcements,
please send them to me and I will distribute your
material through the ISWI NEWSLETTER.

Cordially,
George Maeda
Editor of the ISWI Newsletter, since 2009.

CONTENTS OF THIS ISSUE:

[05] Invitation to Submit Abstracts – AGU 2025 Session on
. Cosmic Rays and Space Weather (SH016)

[06] 4th Conference on SPACE Science, Technology, Applications
. & Regulation (SPACESTAR'25), Tunis, Tunisia, November 12-14, 2025

[07] Invitation to Submit Abstracts – AGU 2025 Session on
. **SOHO: Thirty Years of Solar and Heliospheric Science SH024**

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[01]----------

The Sun's Fiery South Pole Is Revealed for the First Time

New images are key to understanding solar storms and other space weather that can disrupt systems on Earth

BY: Eric Niiler; June 19, 2025; *THE WALL ST. JOURNAL*

For the first time ever, a spacecraft has snapped images of the sun's south pole.

These swirling gold-and-black views of the fiery ball of gas are key to understanding the solar magnetic storms that can block communications on Earth, create vivid displays of northern lights and threaten astronauts with radiation exposure.

The new images by the European Space Agency's Solar Orbiter spacecraft are among several recent observations of the sun's atmosphere and surface that are helping to improve predictions of how and when space weather will affect Earth, according to Daniel Müller, a solar physicist at the ESA.

----------> The full article is attached as PDF.

see: 001_21-June-2025; ESA solar observation satellite, by WSJ (4 pages).pdf
001

[02]----------

RE:
Meeting Announcement: Meeting on Operational
and Research Capabilities for Better Understanding
Solar-Terrestrial Interactions (Sep 29- Oct 3, 2025)

FROM: 'Nikola Veselinovic'
DATE: 24 June 2025

Dear ISWI colleagues,

We are pleased to announce that the

"Meeting on Operational and Research Capabilities for Better Understanding Solar-Terrestrial Interactions,"

will be held in a hybrid format at the *Institute of Physics Belgrade, Serbia* and online, from September 29 to October 3, 2025.

This international conference brings together researchers and practitioners to explore the impact of space weather on Earth and its systems, including satellite operations, power grids, communication, navigation, aviation, and human health. Topics will include solar radiation, solar wind, magnetic field variations, and their effects on Earth's magnetosphere, ionosphere, atmosphere, and climate.

Despite recent advances, predictive capabilities for solar-driven events remain limited. This inaugural event aims to bridge observational, theoretical, and operational efforts while promoting integrated approaches to improve forecasting and preparedness.

Conference goals include:
- Understanding space weather impacts on infrastructure and technology
- Promoting interdisciplinary collaboration
- Advancing real-time monitoring and forecasting tools
- Applying AI and innovative theoretical models
- Strengthening international cooperation

Participants will engage in research presentations, keynote lectures, and discussions on space weather science and practical solutions.

Important deadline:

Abstract submission and registration: **September 1, 2025.**

For more information about the workshop, registration, and abstract submission, please visit the official website:
https://www.cosmic.ipb.ac.rs/workshop-2025/

Sincerely,
Nikola Veselinović
on behalf of Organization Committee

[03]----------

FROM: Yang Fang <fyang[at]nssc.ac.cn>

DATE: Mon, Jun 23, 2025

Dear ISWI Colleagues and Students,

The International Meridian Circle Program (IMCP) is pleased to announce the 2025 IMCP School on Space Weather, scheduled to take place in Haikou, Hainan Province, China from 10-16 November 2025.

The **International Meridian Circle Program** is a geospace science initiative , aimed at exploring the phenomena, drivers, and physical processes associated with space weather. IMCP employs global networks of ground-based observatories and other observational and modeling platforms to carry out its research. As part of this mission, IMCP is committed to fostering collaboration among the international space weather science community and to educating and training the next generation of scientists. IMCP supports not only their individual scientific research but also encourages them to engage in international cooperation.

The school will consist of week-long intensive course lectures and research projects. The courses and projects cover scientific topics from geospace storm effects, radio and optical remote sensing of the upper atmosphere, geomagnetism, and solar and interplanetary physics, as well as modeling and data science aspects. The school will provide ample opportunities for the students to interact with lecturers and senior scientists. The students will be assigned mini projects to work on as a team and present their research at the conclusion of the school and forum. The school is most suited for Ph.D. students, postdocs, and early-career scientists.

The application processes to attend the school is now open and can be accessed at https://forms.cloud.microsoft/r/cMw1rq1mz1

The deadline for submitting applications is **31 July.**

Applicants are required to provide a brief resume with information on their research and course study background, publication, and a statement of research interest.

Local support, including accommodation (a shared hotel room for 2 students) and meals during the school course session and the forum, will be available for up to 40 selected students. Additionally, travel support may be available. Please contact Mr. Fang Yang for questions and specific requests at fyang@nssc.ac.cn.

For more information, please check the school website at: http://school2025.imcp.ac.cn/

We kindly request you to share this announcement widely with your networks, colleagues, and students

Look forward to welcoming you to 2025 IMCP School.

Best regards,
Fang Yang and Liwen Ren

On behalf of the 2025 IMCP School Organizing Committee
Fang Yang
Project Manager
International Meridian Circle Program Office
National Space Science Center, CAS
Tel +86 - 13811196028

[04]----------

RE: AOSWA 2025 Workshop Information in ISWI Newsletter

FROM: Lin Min Min Myint <linminmin.my[at]kmitl.ac.th>
DATE: 26 June 2025
TO: ISWI NEWSLETTER

Dear Dr. George Maeda,

Please find the updated and complete information below for your kind consideration.

The 8th Asia-Oceania Space Weather Alliance (AOSWA) Workshop
Dates: November 10–12, 2025
Location: Haikou, China
Website: https://aoswa2025.casconf.cn/

Organized by the Asia-Oceania Space Weather Alliance (AOSWA), in collaboration with the National Space Science Center (NSSC) of the Chinese Academy of Sciences, this workshop aims to promote regional and global collaboration and information sharing on space weather observation, research, and operations.

It aims to bring together not only members of the Asia-Oceania scientific community but also representatives from other international organizations involved in space weather.

We would also like to extend a warm invitation to you to attend AOSWA 2025. Accepted, registered, and presented papers will be peer-reviewed and published in a Springer Proceedings in Physics volume.

IMPORTANT DATES:
Student Financial Support Deadline: July 31, 2025
Abstract Submission Deadline: August 8, 2025

Notification of Acceptance: August 31, 2025
Registration and Payment Deadline: October 15, 2025
Proceeding Full-Paper Submission Deadline: November 01, 2025
AOSWA 2025 workshop: November 10-12, 2025

This workshop will serve as an excellent platform to exchange ideas, showcase recent advancements, and strengthen collaboration within the international space weather community.

Best regards,
Lin Min Min Myint, Asst. Prof., Ph.D. (IT)
SIIE, School of Engineering
King Mongkut's Institute of Technology Ladkrabang (KMITL)
Bangkok, Thailand

http://iono-gnss.kmitl.ac.th/

[05]----------

Invitation to Submit Abstracts – AGU 2025 Session
on Cosmic Rays and Space Weather (SH016)

FROM: Nikola Veselinovic
DATE: 3 July 2025
TO: ISWI Community

Dear ISWI Colleagues,

I am pleased to invite you to participate in our session *SH016: Monitoring and Forecasting Space and Terrestrial Weather with Ground-Based Measurements of Cosmic Rays* at the **AGU 2025 Fall Meeting,** taking place 15–19 December in New Orleans, Louisiana, USA.

This session will bring together researchers working on the development of cosmic ray detector networks and the application of ground-based cosmic ray measurements for monitoring and forecasting both space and terrestrial weather. We aim to highlight recent progress and foster collaboration across this interdisciplinary field.
We welcome contributions on:

- Instrumentation and network development
- Observational and analytical advances
- Data assimilation techniques
- Physics-based and statistical modeling of cosmic ray modulation

Please freely share this invitation with your students and colleagues.
Abstract submission is open until:

Wednesday, 30 July 2025 (23:59 EDT / 03:59 UTC).

For more details about the session, please visit:
https://agu.confex.com/agu/agu25/prelim.cgi/Session/251287

Session ID: 251287
Section: SPA – Solar and Heliospheric Physics
We look forward to your contributions and to an engaging discussion in New Orleans!

Best regards,
Nikola Veselinović
On behalf of the SH016 Session Conveners

[06]----------

4th Conference on SPACE Science, Technology, Applications & Regulation (SPACESTAR'25), Tunis, Tunisia, November 12-14, 2025

FROM: Kamel Besbes
DATE: 3 July 2025
TO: ISWI Community

Dear ISWI Colleagues,

We're thrilled to invite you to the **4th Conference on SPACE Science, Technology, Applications & Regulation (SPACESTAR'25)**, happening in Gammarth-Tunis, Tunisia, during November 12-14, 2025. This event brings together researchers and professionals with interests in space research, innovation, and development to explore cutting-edge advancements and future directions in the field.

Focusing this year on "Towards the next space generation," the conference in Tunis offers a platform for interdisciplinary discussions and collaboration. This event aims to advance space exploration and utilization, particularly in emerging countries. Join us to connect with experts and shape the future of space innovation. We enthusiastically anticipate your participation.

For more details and submission, visit the conference website:
https://spacestar.tn/2025

You can also contact us at: contact@Spacestar.tn

Conference topics include, but are not limited to:
-Space Science and Exploration
-Space Technology and Engineering

-Space Applications and Utilizations
-Emergent & Interdisciplinary innovations
-Space Policy, Law, and Governance

Abstracts should be in English and not exceed 300 words. Presentation formats include: Oral, Poster, Panel discussion. Extended paper submission is encouraged.

Registration fee grants can be available for applicants from Developing Countries and PhD students (limited to budget).

Important Dates:

Abstract Submission Deadline:	July 24th, 2025
Notification of Acceptance:	September 10th, 2025
Registration:	September 30th, 2025
Conference Dates:	November 12-14, 2025

Join us to share your research, network with global experts, and shape the future of space innovation!

---------- SPACESTAR'25 Committee

Prof. Kamel BESBES

- Centre for Research on Microelectronics & Nanotechnology, Sousse Technopole
- Microelectronics & Instrumentation Lab, LR13ES12, FSM, University of Monastir
- Tunisia Space National Commission
- MHESR Scientific Advisor on Horizon Europe pgm, Digital-Industry-Space
- Ministry of Higher Education and Scientific Research; TUNISIA

[07]----------

Invitation to Submit Abstracts – AGU 2025 Session on
SOHO: Thirty Years of Solar and Heliospheric Science SH024

FROM: Pål Brekke
DATE: 12 July 2025
TO: ISWI Newsletter

Dear ISWI Colleagues,

I am pleased to invite you to participate in our session

SH024: SOHO: Thirty Years of Solar and Heliospheric Science

at the AGU 2025 Fall Meeting, taking place 15–19 December in New Orleans, Louisiana, USA.

The Solar and Heliospheric Observatory (SOHO) was launched on 2nd December 1995 and in the subsequent thirty years the data collected have transformed the study of the Sun and the heliosphere. SOHO's comprehensive suite of in-situ and remote sensing instruments have been observing

heliophysical domains from the solar interior through to the solar wind at 1AU for almost three solar activity cycles. This session solicits contributions that highlight SOHO's broad and continuing impact across multiple scientific disciplines, such as (but not limited to) helioseismology, dynamics and heating of the solar atmosphere, solar wind acceleration and propagation, solar energetic particles, coronal mass ejections, space weather, total solar irradiance, solar cycle studies, and cometary physics. Contributions that use SOHO data in conjunction with data from missions such as Solar Orbiter, Parker Solar Probe and other observatories are also solicited.

Please share this invitation with your students and colleagues.
Abstract submission is open until

Wednesday, 30 July 2025 (23:59 EDT / 03:59 UTC).

For more details about the session, please visit:
https://agu.confex.com/agu/agu25/prelim.cgi/Session/251323

Pål Brekke
Lead Space Science
ESA Delegate Science Programme Committee (SPC) and Prodex

************[End of this issue of the ISWI Newsletter]************

https://www.wsj.com/science/space-astronomy/the-suns-fiery-south-pole-is-revealed-for-the-first-time-69760f5b

001

SCIENCE SHORTS

The Sun's Fiery South Pole Is Revealed for the First Time

New images are key to understanding solar storms and other space weather that can disrupt systems on Earth

By Eric Niiler Follow

June 19, 2025 12:00 pm ET

Key Points

What's This?

- Spacecraft captures first images of the sun's south pole, which help scientists understand solar magnetic storms.
- Solar flares in May 2024 disturbed Earth's magnetic field, affecting power grids and GPS-guided tractors.
- Three missions recently returned new data about the sun, including observations from space and the ISS.

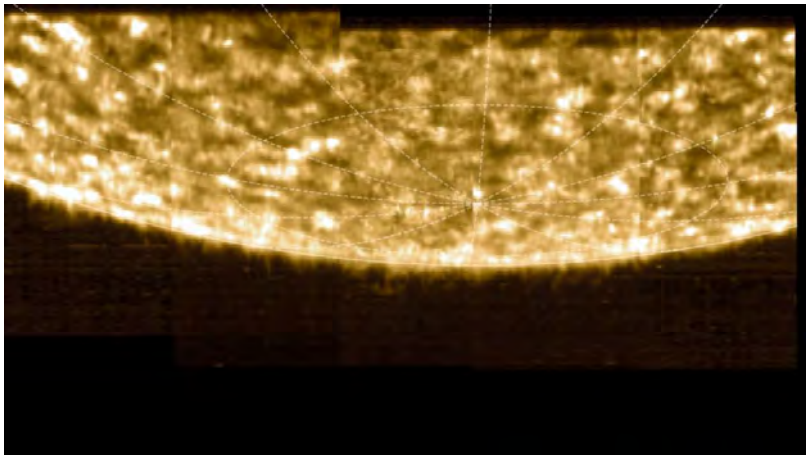
For the first time ever, a spacecraft has snapped images of the sun's south pole.

These swirling gold-and-black views of the fiery ball of gas are key to understanding the solar magnetic storms that can block communications on Earth, create vivid displays of northern lights and threaten astronauts with radiation exposure.

The new images by the European Space Agency's Solar Orbiter spacecraft are among several recent observations of the sun's atmosphere and surface that are helping to improve predictions of how and when space weather will affect Earth, according to Daniel Müller, a solar physicist at the ESA.

Most of us experience the sun as an unwavering source of heat and light. However, the sun's surface and surrounding atmosphere are roiled by turbulent forces that create space weather—conditions that include solar winds of charged particles, powerful magnetic events known as coronal mass ejections and solar flares that erupt from the sun's surface like tongues of fire.

In one of the strongest events in decades, the sun erupted in a series of solar flares and coronal mass ejections in May 2024 that disturbed the Earth's magnetic field, sent currents through power grids, overheated some transformers and temporarily thickened the Earth's atmosphere, forcing several thousand satellites to adjust their orbits to avoid the drag caused by the conditions.



A radiance map of the sun's south pole, as recorded by the Solar Orbiter spacecraft. PHOTO: EUROPEAN SPACE AGENCY/REUTERS

The event also disrupted the accuracy of GPS-guided tractors used by U.S. farmers to plant and fertilize their crops, according to Joseph Westlake, director of the heliophysics division at the National Aeronautics and Space Administration.

"We now have agriculture folks who are getting space weather alerts who feel that all of a sudden the sun matters for their crops for more than just photosynthesis," Westlake said.

The National Oceanic and Atmospheric Administration issues space weather forecasts to warn power-grid operators, satellite internet providers and others who might be affected. "That's why we need this new data," Müller said. "The fundamental science has to be understood first before you can make a good forecast."

Previous spacecraft have taken images of the sun's midsection, or equatorial regions, but the Solar Orbiter used the gravitational pull of Venus to slingshot to a higher orbital angle and fly over the sun's south pole in March.

It is one of three missions that have recently returned new data about the sun. NASA scientists watched a coronal mass ejection take place in June with a new Earth-orbiting observatory called Punch, while an instrument on the International Space Station called Codex captured for the first time temperature changes in the sun's outer atmosphere.

"We're in a brand new age of discovery in heliophysics with the multitude of missions that we have up and running," said NASA's Westlake. "We're just in the early days, and it's really going to be fantastic. These images are just amazing."

Write to Eric Niiler at eric.niiler@wsj.com

Appeared in the June 21, 2025, print edition as 'The Sun's Fiery South Pole Revealed For the First Time'.