

# ISWI Steering Committee Meeting: Annotated Agenda

2024 February 5: 2:00 PM– 6:00 PM and February 6: 9 AM – 1:00 PM CET

In-person & Online Meeting

VIC, Vienna, Austria

Chair: Nat Gopalswamy

# Agenda

## **Feb 5**

1. Introduction & Report (Nat Gopalswamy, Chair): 14:00 – 14:10
2. Secretariat Update (Nat Gopalswamy, Kathleen Kramer, George Maeda, Graciela Molina) 14:10 – 14:40
3. Steering Committee Update (Nat Gopalswamy) 14:40 -14:50
4. SCOSTEP/PRESTO Report (Kazuo Shiokawa) 14:50 – 15:00
7. ISWI/Iberia School 2023 report (Anna Morozova) 15:10-15:20
8. ISWI/Zambia School report (Chigo Ngwira): 15:20-15:30
9. ISWI/Nepal School plans (Nishu Karna) 15:30 – 15:40
11. ISWI/NOAA Report (Elsayed Talat) 15:40 – 15:50
13. COSPAR Space Weather Roadmap and ISWAT activities (Masha Kuznetsova) 15:50 -16:00
5. Reports from ISWI Regional & National Coordinators (lead: Christine Amory) 16:20 – 18:00

## **Feb 6**

5. Reports from ISWI Regional & National Coordinators (lead: Christine Amory) 9:00:-10:30
6. ISWI Instruments Update (Shing Fung and Instrument PIs); Data subcommittee report 10:30 – 11:00
- 10 UN/Germany ISWI workshop and UN-ISWI activities (Sharafat Gadimova, Daniela Banys) 11:15-11:45
12. ISWI/NASA report (???)
14. Steering committee member presentations/discussion 11:45 -12:15, poster viewing

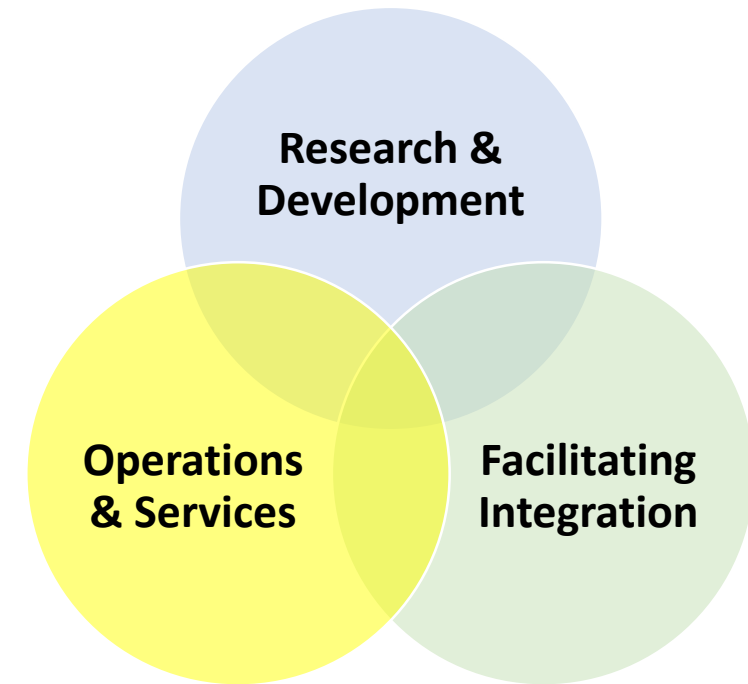
# Mitko Danov Passed away on Nov 19, 2023



- Field-aligned currents
- Space projects like Intercosmos-Bulgaria-1300, APEX, International Space Station, etc.
- Web-master: BBC-network, Sun and Geosphere journal, ISWI, VarSITI program.
- Above all, a fantastic human being

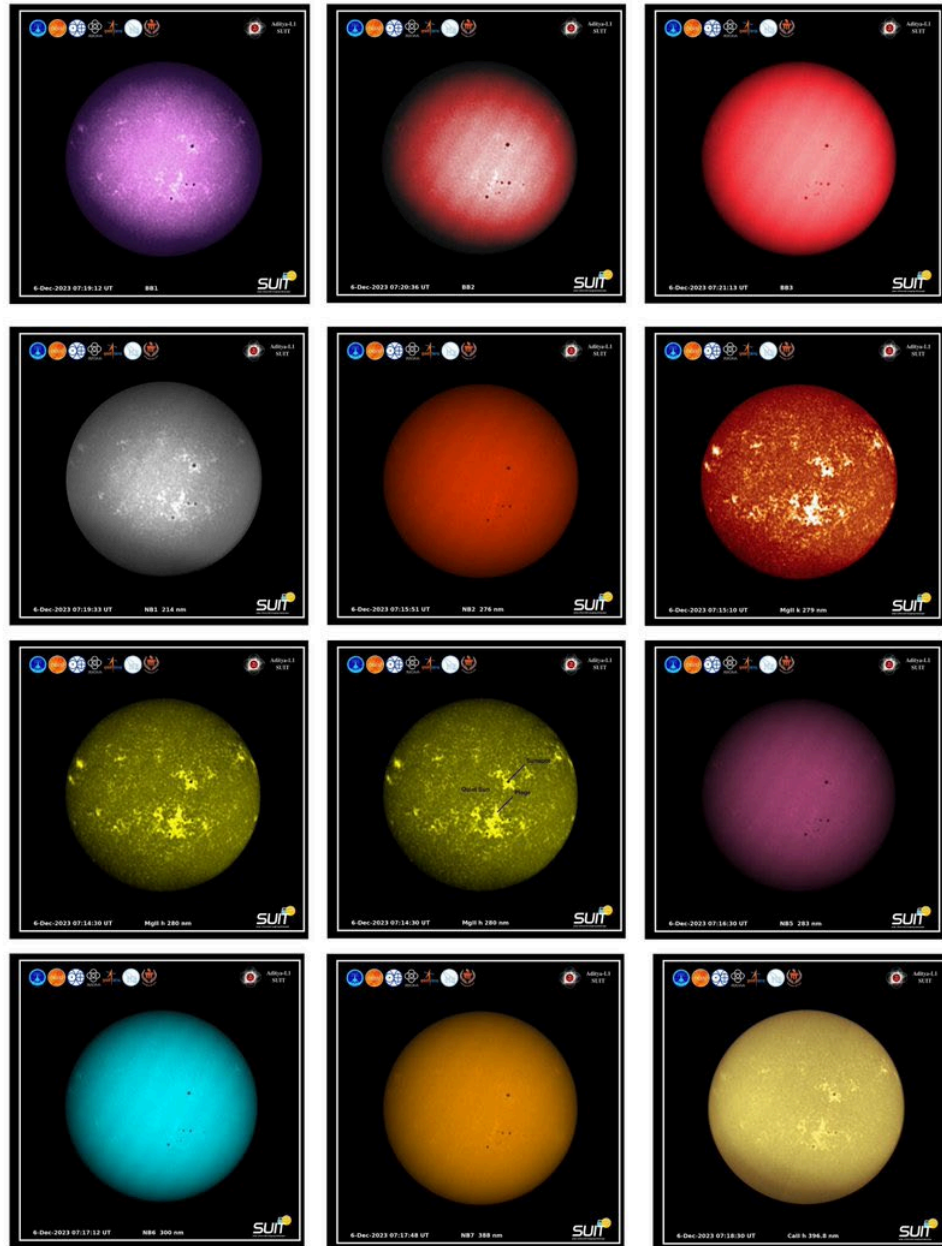
# #1 Introduction & Report (chair)

- Busy 2023 with 2 workshops (ICTP, UN) and 2 schools (ICTP, Zambia); support to other schools
- Supported ISWI school students to attend the AGS meeting in Zambia
- Input to WMO-ISES-COSPAR SWx coordination (M. Kuznetsova)
- ISWI intro to ESWW meeting on IMCP Europe-Africa sector (F. Pitout)
- IMCP – new initiative for meridian passing through Africa
- Aditya L-1 launched; science data started
- ISWI has representation in COSPAR PSW Thank the secretariat, steering, data, membership, & webinar committees
- UN/Germany ISWI workshop (June 10-14, 2023) - manuscript



Aditya-L1's SUIT captures full-disk images of the Sun in near ultraviolet wavelengths

December 2023



# Aditya L1



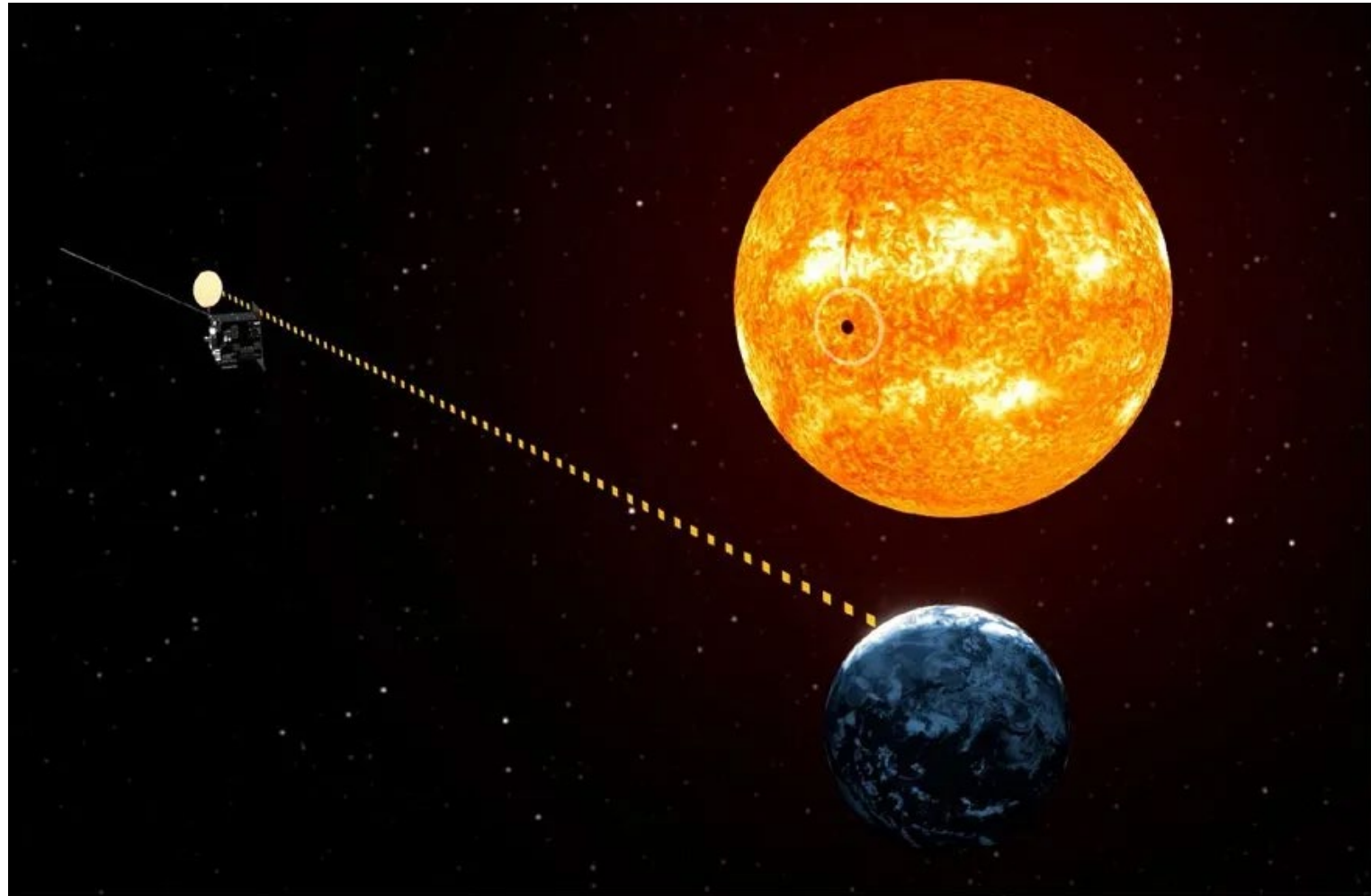
January 6, 2024 SpaceNews

ISRO

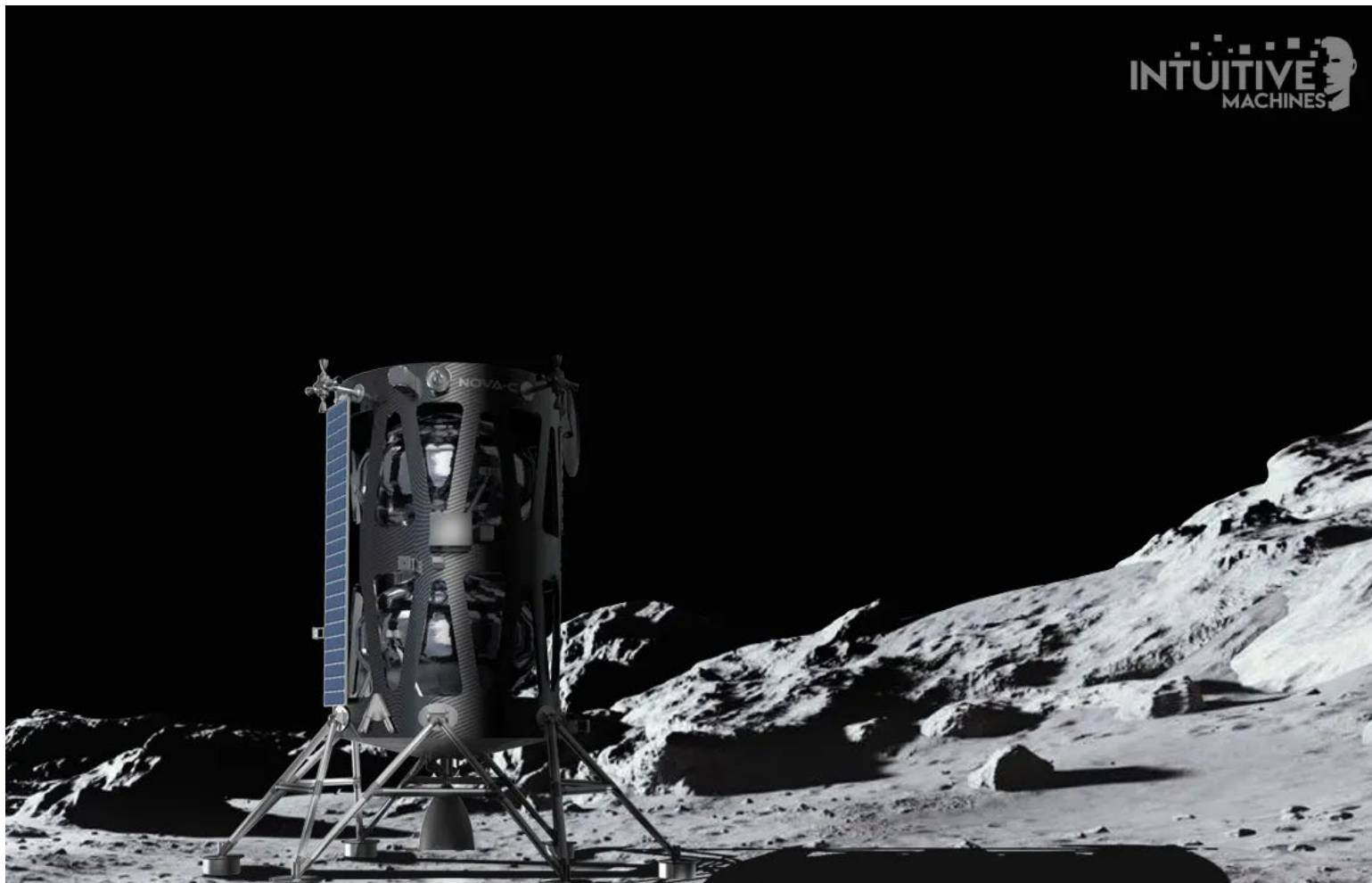


# ESA's Vigil Mission scheduled to launch in 2030

- Compact Coronagraph
- Heliospheric Imager
- Photo-Magnetospheric field Imager
- Extreme ultraviolet Imager
- Plasma Analyzer
- Magnetometer



# IM-1 Launch in days!



## #2 Secretariat update

- <https://www.unoosa.org/oosa/en/ourwork/psa/bssi/iswi.html>



# Season's Greetings & Happy New Year 2024!

## Secretariat

Nat Gopalswamy *Executive Director*

George Maeda *Newsletter Editor*

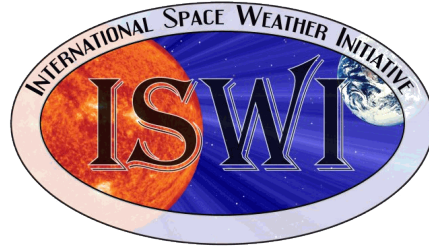
Kathleen Kraemer *Webmaster*

Sharafat Gadimova *UN Liaison*

Keith Groves *Workshop Coordinator*

Shing Fung *Data Coordinator*

Maria Graciela Molina *Webinar Coordinator*



## Steering Committee

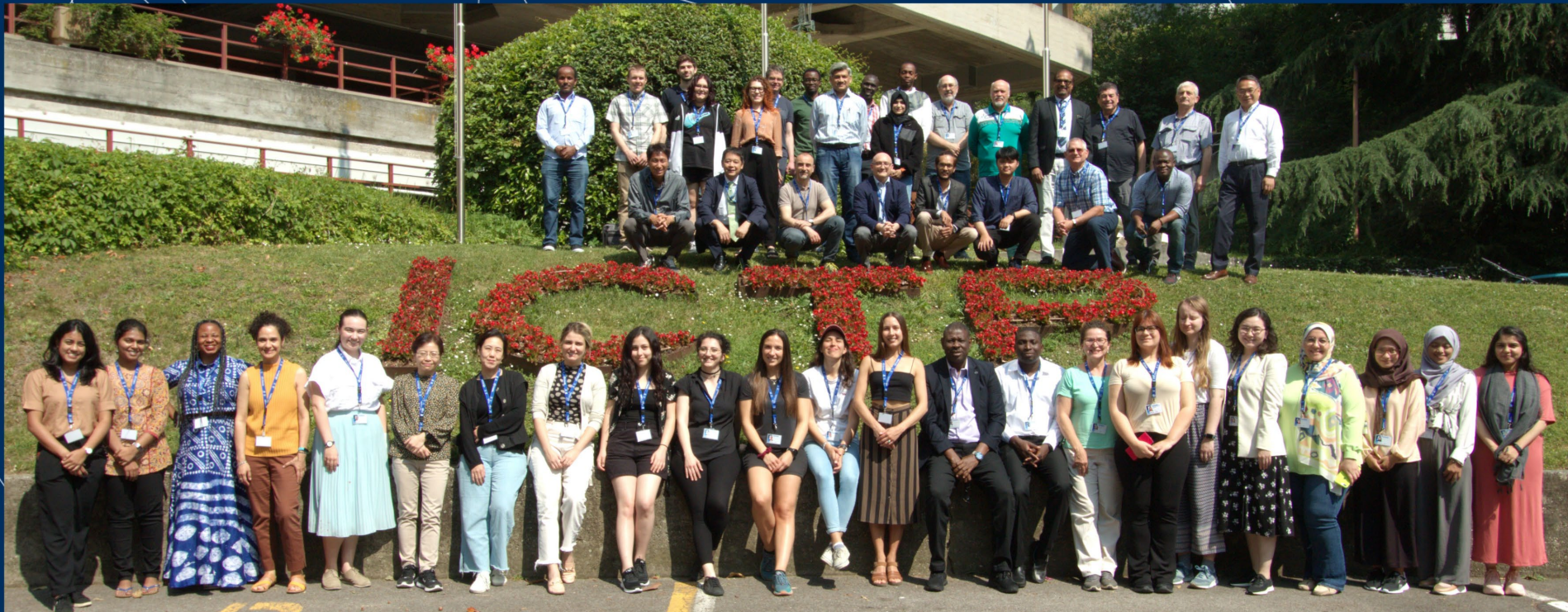
C Amory-Mazaudier D Banyas S Gadimova K Georgieva

J A Gonzalez Esparza N Gopalswamy K Groves

M Guhathakurta K Ichimoto M Ishii N Jakowski I Mann

R Marshall C Monstein B Rabiou J-P Raulin J Spann

E S Talaat M Temmer C Wang A Yoshikawa



*ICTP-SCOSTEP-ISWI  
School*

*May 29, 2023*

*Abdus Salam ICTP  
Trieste, Italy*



Kathleen Kraemer



# Updates:

- Website
- Mailing lists
- Conferences





# WEBSITE



- Instrument page conversions (old to new style) progressing
  - Limited by inputs, time
- Updates take ~24 hr to appear
  - Limited by large media library
- Newsletter archive:
  - Missing Nov 2021--Mar 2023 back issues



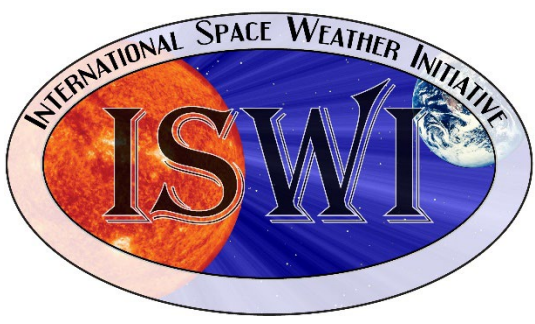
# MAILING LISTS



## **5 BC-hosted mailing lists (@listserv.bc.edu):**

- iswi-secretariat (unmoderated; updated 2022)
  - 6 subscribers
- iswi-steering-committee (unmoderated; 2024)
  - 23 subscribers
- iswi-national-coordinators (moderated - Nat, Shafa, Keith, BC; 2024)
  - 89 subscribers, 3 bouncing
- iswi-instrument-networks-and-providers (moderated - Nat, Shafa, BC; 2022)
  - 35 subscribers, 5 bouncing
- iswi-community (moderated – Nat, BC; 2023)
  - 673 subscribers, newsletter, other announcements

**[iswisupport@bc.edu](mailto:iswisupport@bc.edu)**



# Conferences



2023:

- ICELLI, Sep 4-8, Nigeria
- ISWI Space Weather School, Sep 26-29, Zambia
- ICTP-SCOSTEP-ISWI School & Workshop on PRESTO

2024:

- UN/ISWI Workshop, Jun 10-15, Germany
- Nepal



# ISWI Newsletter



**ISWI**  
International Space Weather Initiative

# A short update from The *ISWI Newsletter*

**Editor: George Maeda**

**10 Jan 2024, Fukuoka, Japan**



The **ISWI Newsletter** has been published by the ISWI Secretariat since 2009. It is distributed free of charge to anyone who has an interest in ISWI.

It comes out once per month. The target date is the 15<sup>th</sup> of each month. However, occasionally the newsletter is released a few days late or early for various reasons.

Any space-weather-related news (announcements of scholarships, job openings, future events, event reports, and so on) is welcome by the editor, George Maeda. His email is [georgemaeda3\[at\]gmail.com](mailto:georgemaeda3[at]gmail.com)

Please send in your news as either plain text or in PDF. Please endeavor to keep the PDF under 1 MB so as to facilitate mass distribution.

As of 7 January 2024, the **ISWI Newsletter** has 674 subscribers all over the world.

**There has been one  
big change in the Newsletter**

**(refer to the next page)**

# Note

There is a new mailing list server for the newsletters as of January 2024.

Messages will be coming from

[iswi-community@listserv.bc.edu](mailto:iswi-community@listserv.bc.edu)

which you may need to add to your **Contacts** to prevent messages from going to your spam file.

To subscribe or unsubscribe, send a message to [iswisupport@bc.edu](mailto:iswisupport@bc.edu)  
(Please do not reply to [iswi-community@listserv.bc.edu](mailto:iswi-community@listserv.bc.edu))

## **SOURCE:**

<https://iswi-secretariat.org/home-page/news/>



# Reminder

Issues of the **ISWI Newsletter** are archived by

Dr. Kathleen Kraemer  
Boston College Institute for Scientific Research  
Kenny Cottle Hall  
885 Centre St.  
Newton, MA 02459 United States

For back issues, please go to this site:

<https://iswi-secretariat.org/home-page/news/newsletter-archive/>

This has the newsletters for 2009 through Oct 2021.

Back issues for Nov 2021--Mar 2023 are not available yet.

**END OF THE 2024 UPDATE FOR THE ISWI NEWSLETTER**

ISWI steering committee meeting,  
Vienna, 5 - 6 February 2024.

Report

# ISWI webinar series



# Main objectives

- Enhance participation of the ISWI community (especially after COVID)
- Invited speaker on topics relevant to ISWI ( space weather, ionospheric physics, ISWI instrumentation, international government policies and actions, and national activities among others).
- Monthly (last Wednesday of each month).
- Started on April 2022.

## ISWI seminar committee

### Chair

- María Graciela Molina

### Members

- Shing F. Fung
- Sharafat Gadimova
- Nat Gopalswamy
- George Maeda
- Babatunde Rabiou
- Nandita Srivastava
- Endawoke Yizengaw

### Thanks to

Kathleen Kraemer  
Patrick Gindler

# • Invited speakers so far

- Nat Gopalswamy
- Mark Moldwin
- Pertti Makela
- Ramón Lopéz
- Sergio Dasso
- Miho Janvier
- Christine Armory-Mazaudier
- Ivan Galkin
- Manuela Temmer
- Kazuo Shiokawa
- Keith M. Groves
- Lucia Kleint
- Doug Rowland
- Hebe Cremades
- Wojciech Miloch

# Up to 1k views in the first Webinars



- 1 International Space Weather Initiative Webinar 01 (27 April 2022)  
UN Office for Outer Space Affairs • 1K views • 1 year ago
- 2 International Space Weather Initiative Webinar 2 (25 May 2022)  
UN Office for Outer Space Affairs • 542 views • 1 year ago
- 3 International Space Weather Initiative Webinar 3 (29 June 2022)  
UN Office for Outer Space Affairs • 324 views • 1 year ago
- 4 International Space Weather Initiative Webinar 4 (27 July 2022)  
UN Office for Outer Space Affairs • 305 views • 1 year ago
- 5 International Sp  
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- 6 International Sp  
UN Office for Outer S

> 250 views in the last uploaded talk





To achieve our objectives,

Participation of the community, please share the information about future ISWI seminars with students and colleagues, and share the Youtube channel to visit past Webinars



# Steering Committee

C Amory-Mazaudier

D Banys

S Gadimova

K Georgieva

J A Gonzalez Esparza

N Gopalswamy

K Groves

M Guhathakurta

K Ichimoto

M Ishii

N Jakowski

I Mann

R Marshall

C Monstein

B Rabiou

J-P Raulin

J Spann

E S Talaat

M Temmer

C Wang

A Yoshikawa

# #4 SCOSTEP/PRESTO Report (Kazuo Shiokawa)

#7. ISWI/Iberia School 2023 report (Anna Morozova)

# The 3<sup>rd</sup> Iberian Space Science Summer School (i4s)

June 26-30, 2023, Coimbra, Portugal



# The 3<sup>rd</sup> Iberian Space Science Summer School (i4s) June 26 - 30, 2023, Coimbra, Portugal

## Co-Chairs:

- Anna Morozova, Uni. of Coimbra, Portugal
- Natchimuthuk Gopalswamy, NASA GSFC, USA
- Kazuo Shiokawa, ISEE, Nagoya Uni., Japan

## Programme Committee Members:

- Antonio Guerrero, Uni. of Alcala, Spain
- Bernd Funke, Instituto de Astrofísica de Andalucía, CSIC, Spain
- Christine Amory-Mazaudier, IPP, France
- Consuelo Cid, Uni. of Alcala, Spain
- Daniel Marsh, NCAR/Uni. of Leeds, USA/UK
- Keith Groves, Boston College, USA
- Ramon Lopez, Uni. of Texas, USA
- Rui Pinto, IRAP, France
- Teresa Barata, Uni. of Coimbra, IA, Portugal

## i4s LOC members:

- Anna Morozova, Uni. of Coimbra, Portugal
- Teresa Barata, Uni. of Coimbra, Portugal
- Consuelo Cid, Uni. of Alcalá, Spain
- Antonio Guerrero, Uni. of Alcalá, Spain
- Ricardo Gafeira, Uni. of Coimbra, Portugal
- Manuel Flores, Uni. of Alcalá, Spain

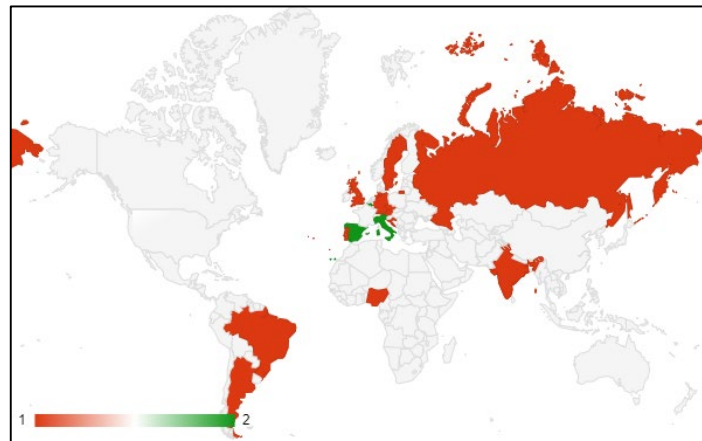
## Organizational and financial support:





# Students

- The school was aimed at students with MSc degree (with defense scheduled no later than December 2023), PhD students and young researchers/postdocs working in Space Sciences (mostly in Space Weather).
- The school received a total of 46 applications that fulfilled the criteria.
- Most of the applications were received from developing countries:
  - India (19 applications)
  - Brazil (8 applications)
  - Egypt (6 applications)
  - Nigeria (5 applications)
- At the end, after a 2-stage review process and negotiation with ISWI and ISEE about travel support of students DAC-supported countries, 20 students were selected to participate in i4s 2023 (including 4 students with ISWI and ISEE travel grants)



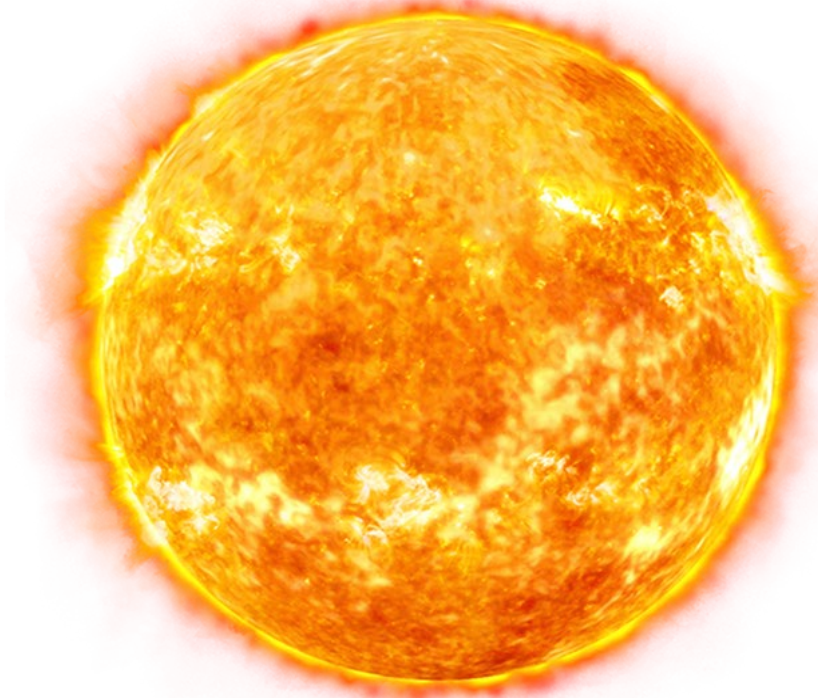


# Activities

- The school was organised during a week from Monday to Friday
- The i4s program included:
  - **Lectures** (morning hours):
    - 9 lectures on space weather topics (from Monday to Thursday)
    - 2 lectures on broader space-related topics (Friday)
  - Work on **school projects** (afternoon hours):
    - An analysis of a certain space weather event from its solar sources to possible ground effects.
    - The students were divided into four groups of 4-5 people, and each of the groups was assigned a specific space weather event
  - **Presentations** of students' own work (poster and oral presentations),
  - **Final presentation of the projects** made by all members of all groups (Friday)
  - **Extracurricular activity:**
    - A visit to the University of Coimbra museum and Joanina Library (Tuesday afternoon),
    - A visit to the Geophysical and Astronomical Observatory of the University of Coimbra (Wednesday afternoon)



#8. ISWI/Zambia School report (Chigo Ngwira)



# The 2023 International Space Weather Initiative School – Lusaka, Zambia

Chigo Ngwira and The Organizing Committee

# Organizing the ISWI School

- Dates: September 26-30, 2023
- Location: Grand Palace Hotel, Lusaka, Zambia
- Local Institutions
  - Led by the Physics Society of Zambia
  - University of Zambia, Copperbelt University, Nkrumah University, & Mulungushi University
- International Partners:
  - ISWI
  - African Geophysical Society
  - SANSA
  - NASA
  - University of Calgary
  - University of Michigan
  - Catholic University of America

# Announcements, Applications, and Selection

Announcement disseminated through several platforms

Name	Acronym
International Space Weather Initiative	ISWI
African Geophysical Society	AGS
Solar News (American Astronomical Society)	SolarNews AAS
Coupling, Energetics, and dynamics of atmospheric regions	CEDAR
Geospace Environment Modeling Messenger	GEM
AGU Space Physics and Aeronomy Newsletter	AGU SPA

- School targeted MSc, PhD, and early career/postdocs
- 93 unique applications received
  - 20 different countries
  - 64 - international
  - 29 - Zambia
- 34 final participants
  - 23- international
  - 11- local
  - 12 MSc, 14 PhD, and 8 undergrads
- **14 experts - lecture team**





Participants





# Outcomes

- Exchange of knowledge and creation of new collaborations
- Skills development – python coding, data analysis/mining etc
- Capacity building – Instrument deployment at one local university
- Positive feedback from participants about the school and future opportunities
- Other engagements
  - Local school visits
  - Stakeholder meeting
  - Cultural visit



# Funding Support

- A total of **\$33,600 USD** available to cover all expenses (air tickets, rooms, venue, meals, conference dinner):
  - ❑ ISWI - **\$27,000 USD**
  - ❑ University of Calgary - **\$5,000**
  - ❑ Copperbelt University – **\$1,100**
  - ❑ University of Michigan – **\$500**
- Other Funded items
  - ❑ SANSA – **1 student** (air ticket)
  - ❑ NSF – **2 students** (full support)
  - ❑ SCOSTEP - **\$5,000** (capacity building – lecturers from Africa)
  - ❑ NASA Goddard - **\$8,000** (hotel rooms for ISWI students during AGS conference)



# AGS International Conference on Space Weather

- Focus on capacity building in Africa
- Run from October 2<sup>nd</sup> – 4<sup>th</sup> 2023
- About 65 scientists and students attended
- ISWI school participants among attendees
- NASA Goddard funded participants hotel

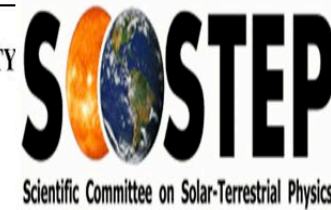
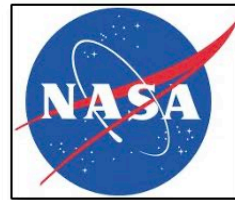
# Sponsors and partners



UNIVERSITY OF  
CALGARY



The Copperbelt University



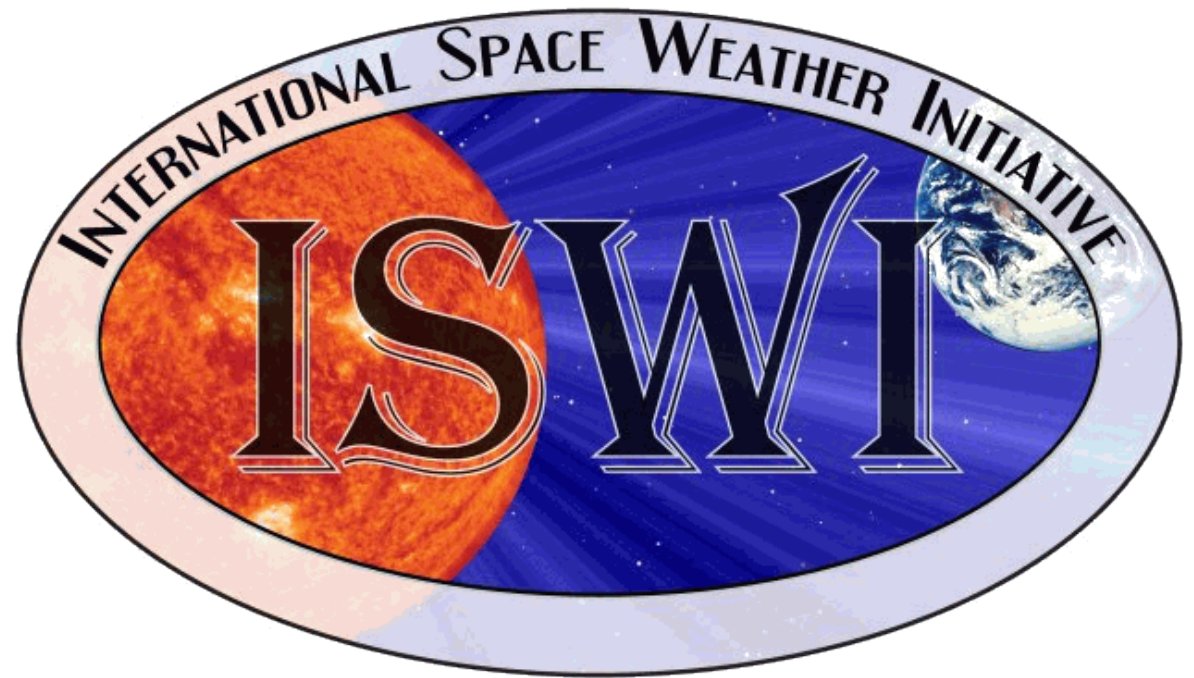
AFRICAN  
GEOLOGICAL  
SOCIETY

## #9. ISWI/Nepal School plans (Nishu Karna)



# ISWI Space School

Kathmandu, Nepal  
September 15-21, 2024



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# Meeting Information

**Location:** Kathmandu, Nepal

**Date:** September 15 to September 21, 2024

**Tentative venue:** Nepal Academy of Science and Technology

Applications will open on February 01, 2024 and will close on May 31, 2024

The school will host about fifty participants. Around twenty-five students will be participating from Nepal and the rest (twenty-five students) from neighboring countries.





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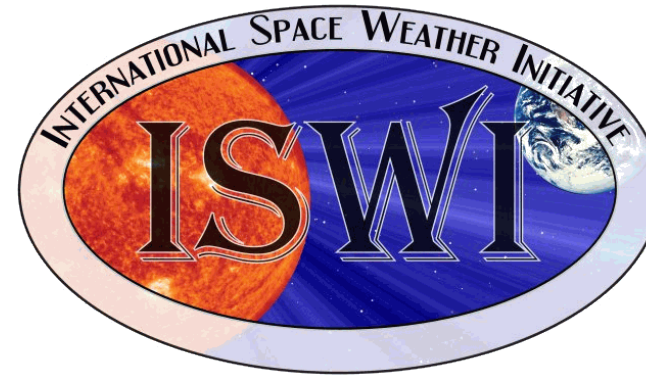
## Cosponsors

### Local hosting group

Led by the **Nepal Physical Society**

Nepal Academy of Science and Technology

Local host to fund venue, tea/coffee breaks, and banquet dinner

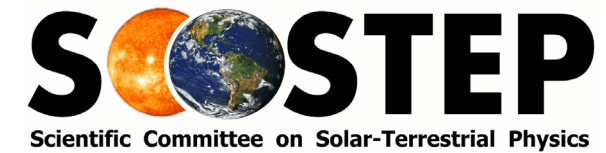


### International partners

ISWI, SCOSTEP, NSF

More partners to be engaged

Largely funded by ISWI





## Proposed Topics

- ❑ Instrumentation
- ❑ Solar Interior and Photosphere
- ❑ Solar Atmosphere-Heliosphere
- ❑ Solar Wind-Magnetosphere, Ionosphere coupling and Earth response
- ❑ Solar cycle and prediction
- ❑ Space Weather effects on Global Navigation Satellite Systems and applications
- ❑ Space science Communication, Education, and Outreach.
- ❑ Python tutorial

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## Instructors

- 1) Dean Pesnell (NASA/GSFC)
- 2) Michael Kirk (NASA/GSFC)
- 3) Kathy Reeves (CfA)
- 4) Nat Gopalswamy (NASA/GSFC)
- 5) Tatiana Niembro (Mexico, CfA)
- 6) Nishu Karna (Nepal, CfA)
- 7) Laxman Adhikari (Nepal, UAH)
- 8) Dinesh Manandhar (Nepal, CSIS)
- 9) Bidya Vinay Karak (India, IIT BHU)
- 10) Shea Hess Webber (Stanford)
- 11) Keith Groves (Boston College)
- 12) Hiroshi Hasegawa (Japan, JAXA)
- 13) Narayan Chapagain (Nepal, TU)



## Local Organizing Committee

Dr. Nilam Shrestha (Chair)

Dr. Hari Shankar Mallik

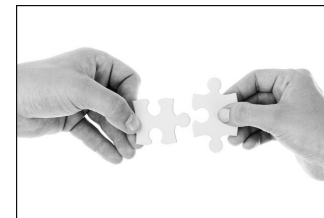


## #11. ISWI/NOAA Report (Elsayed Talaat)



## #13. COSPAR Space Weather Roadmap and ISWAT activities (Masha Kuznetsova)





# Pathways to Improving International Coordination in Space Weather

**Masha M. Kuznetsova**

*with*

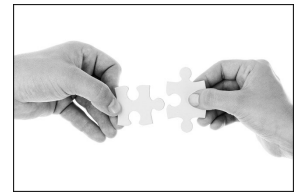
*COSPAR Panel on Space Weather (PSW)*

*International Space Weather Action Teams (ISWAT)*

*WMO-ISES-COSPAR Coordination Team (WICCT)*



## COSPAR Panel on Space Weather (PSW)

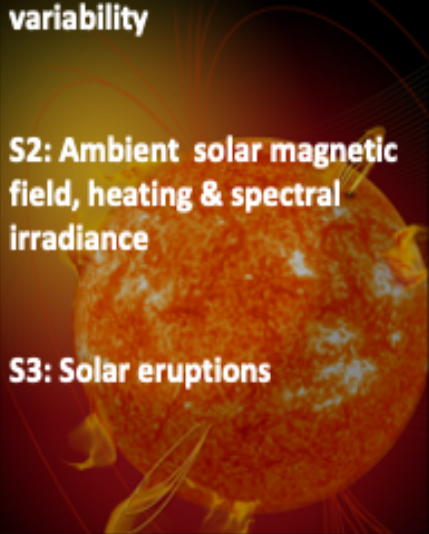




- PSW led by a chair and four vice-chairs includes **40+ appointed members** representing national agencies, international bodies (UN COPUOS, WMO, ISWI, ISES, SCOSTEP, IAGA, URSI), and major space weather research organizations world-wide.
  - On-going update/reappointments of PSW members for the 2024-2028 term. Nominations are welcome. A chair and one vice chair are due for re-election in summer 2024.
- PSW is hosting a bottom-up community-driven **International Space Weather Action Teams (ISWAT)** initiative established by international community members with a sense of urgency to enable *Space Weather Without Borders*
- PSW chair and several PSW appointed members are representing COSPAR at the **WMO-ISES-COSPAR Coordination Team (WICCT)** established based on recommendations from UNOOSA Space Weather Expert Group.

# Platform for Self-Organized Open Collaborations Addressing Challenges Across the Field of Space Weather



<https://iswat-cospar.org>

<i>S: Space weather origins at the Sun</i>	<i>H: Heliosphere variability</i>	<i>G: Coupled geospace system</i>	<i>Impacts</i>
 <p><b>S1: Long-term solar variability</b></p> <p><b>S2: Ambient solar magnetic field, heating &amp; spectral irradiance</b></p> <p><b>S3: Solar eruptions</b></p>	 <p><b>H1: Heliospheric magnetic field and solar wind</b></p> <p><b>H2: CME structure, evolution and propagation through heliosphere</b></p> <p><b>H3: Radiation environment in heliosphere</b></p> <p><b>H4: Space weather at other planets/planetary bodies</b></p>	 <p><b>G1: Geomagnetic environment</b></p> <p><b>G2a: Atmosphere variability</b></p> <p><b>G2b: Ionosphere variability</b></p> <p><b>G3: Near-Earth radiation &amp; plasma environment</b></p>	<p><i>Climate</i></p> <p><i>Electric power systems/GICs</i></p> <p><i>Satellite/debris drag</i></p> <p><i>Navigation/Communications</i></p> <p><i>(Aero)space assets functions</i></p> <p><i>Human exploration</i></p>
<p><b>Overarching Activities:</b></p> <p><i>O1: Assessment</i>                      <i>O2: Information Architecture &amp; Data Utilization</i></p> <p><i>O3: Innovative Solutions</i>        <i>O4: Education &amp; Outreach</i></p>			

**Action Teams** (building blocks of **ISWAT**) are organised into **ISWAT Clusters** by domains, phenomena, impact, or overarching activity.

**Status: 62** Action Teams, 15 Clusters, 550+ active members, 40+ countries, 300+ affiliations.

**Working Meetings:**

- 2020 (Florida, USA)
- 2022 (Coimbra, Portugal)
- ISWAT@ESWW2023 and other mini-ISWATs

• **2025, Feb 9 – 14, 2025**  
**Port Canaveral, Florida, USA)**

- ISWAT is an effort multiplier. Maximise return on investments by national/regional programs

# Community-Driven Space Weather Roadmap:

*Where are we now? Where are we going? Where we want to be?*

- ISWAT formed the backbone for two **Roadmap Special Issues** in COSPAR 'Advances in Space Research' with
  - a set of science papers for **ASR-SI-1 (Science Research and Applications)** coordinated by Action Team Leads.
  - a set of review papers mirroring the ISWAT Cluster structure for **ASR-SI-2 (Achievements and Future Goals)**
- **Additional** papers for **ASR-SI-2** led by PSW: *Source-to-Impact Pathways, Interfacing with Users, International Space Weather Landscape*
- **Transparency in writing process for review papers:** titles, abstracts, paper outlines were available for the community for comments/contributions at ISWAT website. Internal review prior to submissions.
- Everyone had opportunity to participate in this **open peer reviewed endeavor** by submitting papers to Roadmap Special Issues and contributing to review papers.
- *COSPAR-ILWS Roadmap [Schrijver et al, 2015] is used as a point of reference*
- *ASR-SI-1 is **published** in Vol 72, No. 12 (2023), 37 papers, 500+ pages*
- *ASR-SI-2 status: 13 papers **accepted**, 8 under **review/revision**, 2 in final stages of **preparation***
- **Roadmap Summary and Recommendations** to be available before COSPAR 2024.
- **Roadmap event at COSPAR 2024:** Review recommendations, discuss approach to periodic updates.
- Plan **post-Roadmap** goals/activities in preparation to **ISWAT2025** (Feb. 2025, Florida, USA)

# Space Weather International Coordination Forum

WMO-ISES-COSPAR Coordination Team (WICCT) organized a **Space Weather International Coordination Forum** to bring together representatives from major organisations engaged in space weather to identify areas where coordination is lacking and to explore pathways to increased coordination of activities.

Anticipated outcomes of ISWC Forum include:

- An outline of the international space weather landscape identifying **primary expertise of each organization** represented in the Forum
- Plans for interfacing with organizations representing major user groups
- Approach to alignments with national strategic planning activities and funding programs
- Join projects to demonstrate the value of collaboration and coordination

***First ISWCF Meeting: 17 November, 2023, WMO***

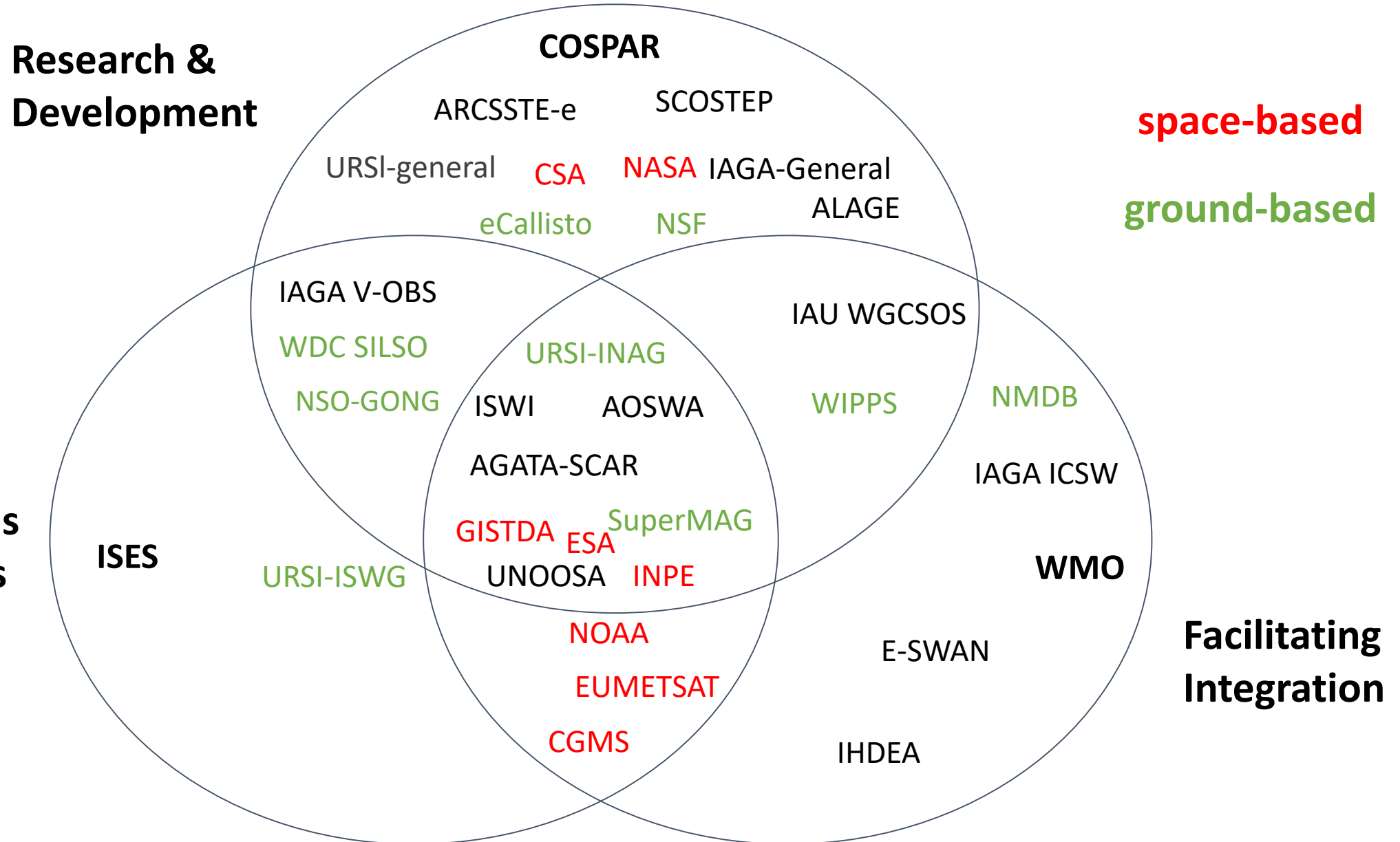
*Links to **Statement of Intent** are available at COSPAR, WMO and ISWS Websites:*

<https://drive.google.com/file/d/1MtCZC1JuRdoqByRRHLnoKBi7mPAJfX1H/view>





# Primary area of ISWCF organisations' expertise



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## #5. Reports from ISWI Regional & National Coordinators (lead: Christine Amory)

- On February 5 from 16h20 to 18h00
  - Introduction : 16h20-16h25 Christine Amory-Mazaudier
  - Presentations of Scientists from Europe (Regional coordinator : Daniela Banys) 16h25-17h25
    - Presentation project IMCP Europe Afrique (Michel Blanc)
  - Presentations of Scientists from America (Regional coordinator : Americo Gonzales Esparza) 17h30-18h00
- On February 6 from 9h00 -10h30
  - Presentations of Scientists from Asia ( Regional Coordinator : Richard Marshall) 9h-9h30
  - Presentations of Scientists from Africa (Regional Coordinator : Babatunde Rabiou) 9h30-10h30

#15 Any other business?



# Acknowledgments

- Many thanks to Shafa and Patrick for organizing the SC meeting
- Thanks to all the presenters for the informative talks.