

Geosciences Instrumentation and Data Systems

2024 Division Meeting

PIETRO TIZZANI (Division President)
EGU24 General Assembly, Vienna and online | 14–19 April

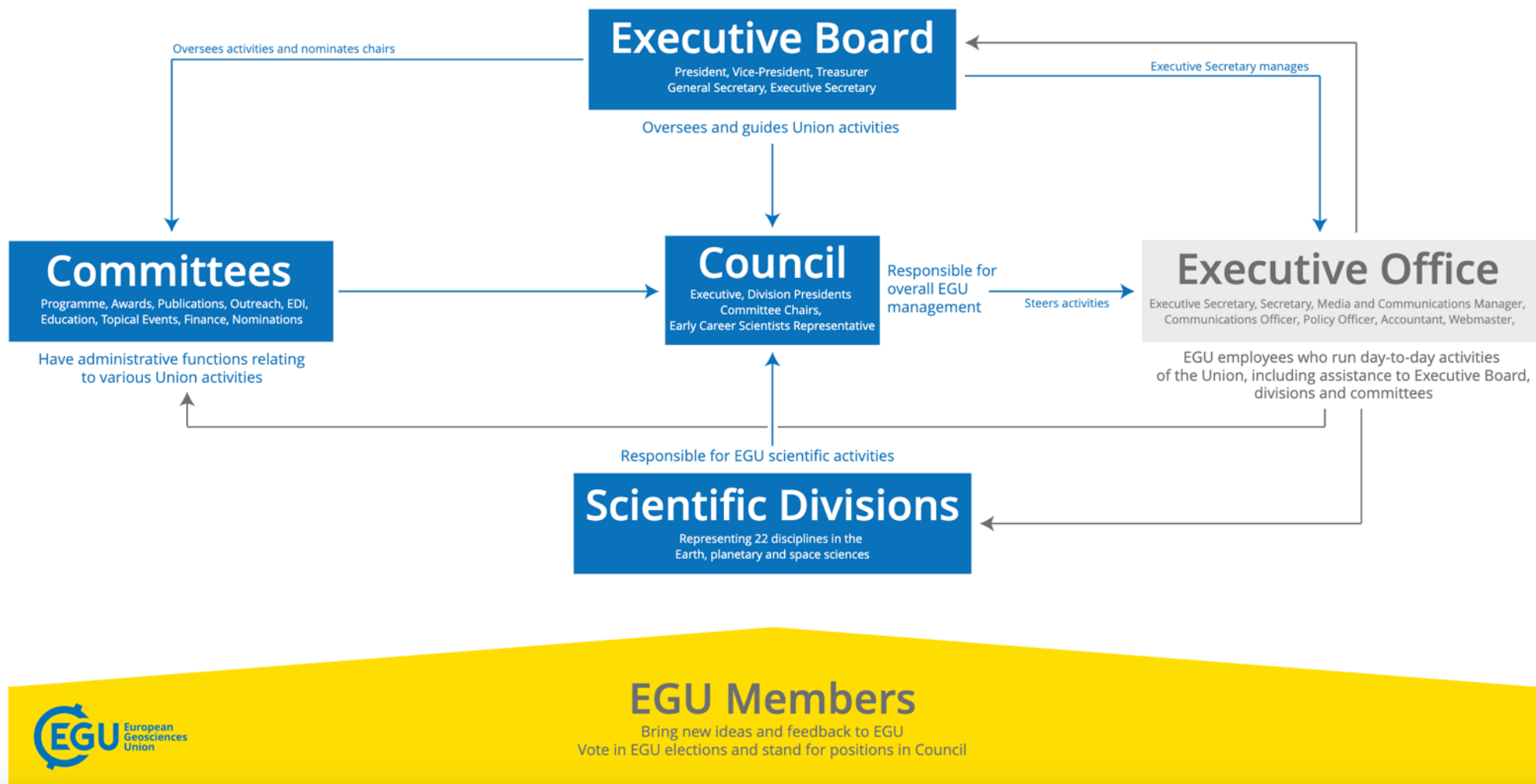


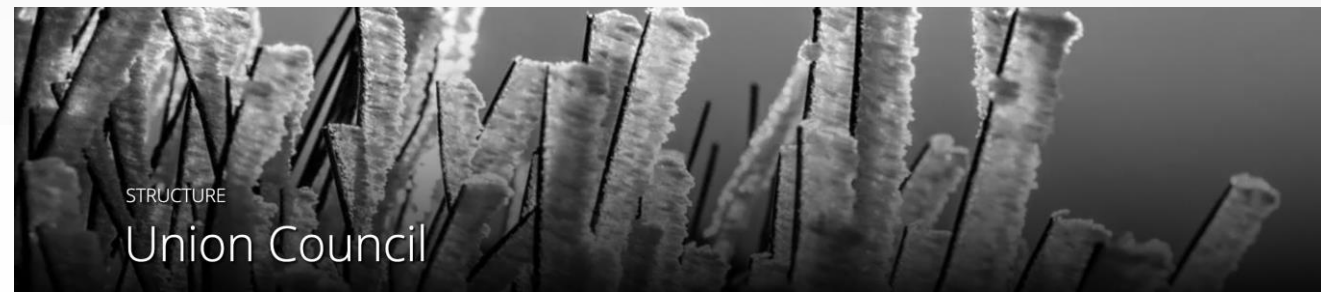
Meetings | Publications | Outreach | www.egu.eu



The EGU Council welcomes you to the EGU General Assembly 2024!

The EGU is a bottom-up organisation structured in scientific divisions, committees, and a council.





Executive Board

The president, vice-president, general secretary, treasurer and executive secretary form the EGU Executive Board. It assists the president in overseeing and providing strategic guidance to all activities of the Union, in particular those of the [committees](#) and the [Union office](#).



Irina M. Artemieva
PRESIDENT

✉ president@egu.eu



Helen M. Glaves
VICE-PRESIDENT

✉ vice-president@egu.eu



Jane K. Hart
GENERAL SECRETARY

✉ general-secretary@egu.eu



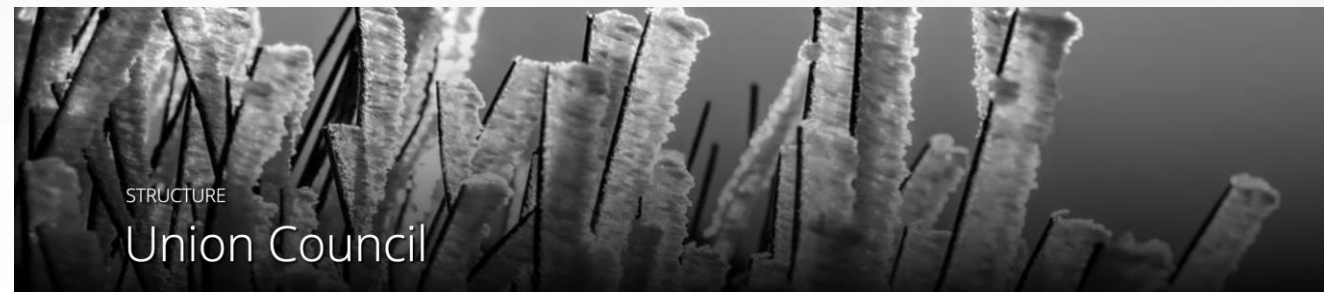
Patric Jacobs
TREASURER

✉ treasurer@egu.eu























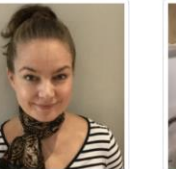

Philippe Courtial
EXECUTIVE SECRETARY

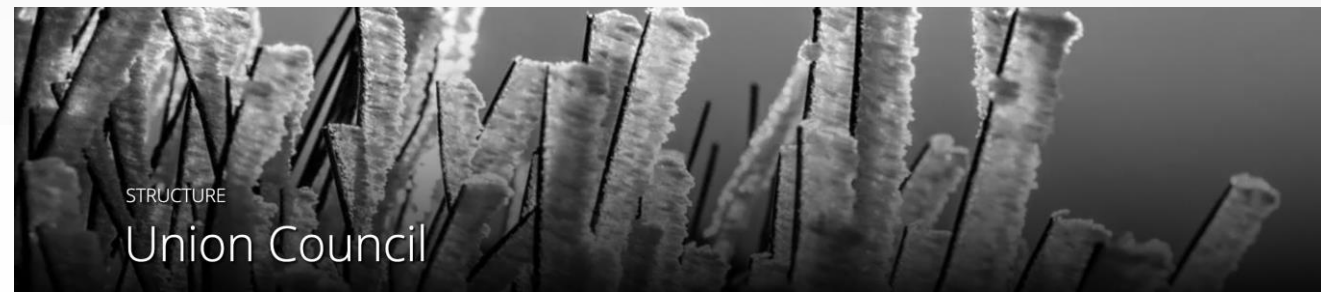
✉ executive-secretary@egu.eu



Division presidents

The EGU scientific activities are organised through [scientific divisions](#) encompassing all studies of the Earth and its environment and of the solar system in general. The management and administration of each division are the collective [task and responsibility](#) of the respective officers.

 Philip Stier AS DIVISION PRESIDENT ✉ as@egu.eu	 Lisa Wingate BG DIVISION PRESIDENT ✉ bg@egu.eu	 Kerstin Treydte CL DIVISION PRESIDENT ✉ cl@egu.eu	 Carleen Tijm-Reijmer CR DIVISION PRESIDENT ✉ cr@egu.eu	 Sergio Vinciguerra EMRP DIVISION PRESIDENT ✉ emp@egu.eu	 Viktor Bruckman ERE DIVISION PRESIDENT ✉ ere@egu.eu	 Alberto Viglione HS DIVISION PRESIDENT ✉ hs@egu.eu	 Heidi Kreibich NH DIVISION PRESIDENT ✉ nh@egu.eu	 François Schmitt NP DIVISION PRESIDENT ✉ np@egu.eu	 Johan van der Molen OS DIVISION PRESIDENT ✉ os@egu.eu	 Anezina Solomonidou PS DIVISION PRESIDENT ✉ ps@egu.eu	 Alice-Agnes Gabriel SM DIVISION PRESIDENT ✉ sm@egu.eu
 Jens Klump ESSI DIVISION PRESIDENT ✉ essi@egu.eu	 Annette Eicker G DIVISION PRESIDENT ✉ g@egu.eu	 Jeroen van Hunen GD DIVISION PRESIDENT ✉ gd@egu.eu	 Pietro Tizzani GI DIVISION PRESIDENT ✉ gi@egu.eu	 Kristen Cook GM DIVISION PRESIDENT ✉ gm@egu.eu	 Holly J. Stein GMPV DIVISION PRESIDENT ✉ gmpv@egu.eu	 Cinzia Bottini SSP DIVISION PRESIDENT ✉ ssp@egu.eu	 Heike Knicker SSS DIVISION PRESIDENT ✉ sss@egu.eu	 Emilia Kilpua ST DIVISION PRESIDENT ✉ st@egu.eu	 Paola Vannucchi TS DIVISION PRESIDENT ✉ ts@egu.eu		



Committee chairs

The administrative activities of the Union are carried out through [committees](#), established by the Council as necessary. EGU has presently nine committees that report to the Council.



Thomas Blunier
AWARDS COMMITTEE
CHAIR

✉ awards-medals@egu.eu



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EDUCATION COMMITTEE
CHAIR

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EDI COMMITTEE CO-
CHAIR

✉ edi@egu.eu



Caroline Slomp
EDI COMMITTEE CO-
CHAIR

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Patric Jacobs
FINANCE COMMITTEE
CHAIR

✉ treasurer@egu.eu



Irina M. Artemieva
NOMINATIONS
COMMITTEE CHAIR

✉ president@egu.eu



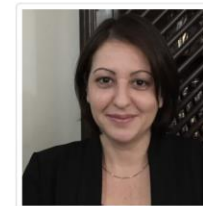
Martin Archer
OUTREACH COMMITTEE
CHAIR

✉ outreach@egu.eu



Athanasios Nenes
PROGRAMME
COMMITTEE CO-CHAIR

✉ programme-committee@egu.eu



Maria-Helena
Ramos
PROGRAMME
COMMITTEE CO-CHAIR

✉ programme-committee@egu.eu



Barbara Ervens
PUBLICATIONS
COMMITTEE CHAIR

✉ publications@egu.eu



Claudio Rosenberg
TOPICAL EVENTS
COMMITTEE CHAIR

✉ topical-events@egu.eu

EGU24: News from the EGU Programme Committee

- **EGU Programme Committee** has **two Co-chairs**, appointed by the EGU Council. They are supported by **an Events Manager** staff member from EGU office
- **Programme Committee:** comprised of **General Positions** (Executive Board, Conference Organizer, PC Co-chairs), and **Programme Group Chairs** (25 Programme Groups reflecting the 22 EGU Divisions with their science officers, and SC, ITS, EOS programmes)
- **Our goal:** to offer a reliable, **hybrid** format of the General Assembly with flexibility to respond to any emerging needs, as **inclusive** and **environmentally friendly** as possible, while responding to the main **scientific challenges of geosciences worldwide**



Maria-Helena
Ramos

PROGRAMME COMMITTEE
CO-CHAIR



Athanasios Nenes

PROGRAMME COMMITTEE
CO-CHAIR



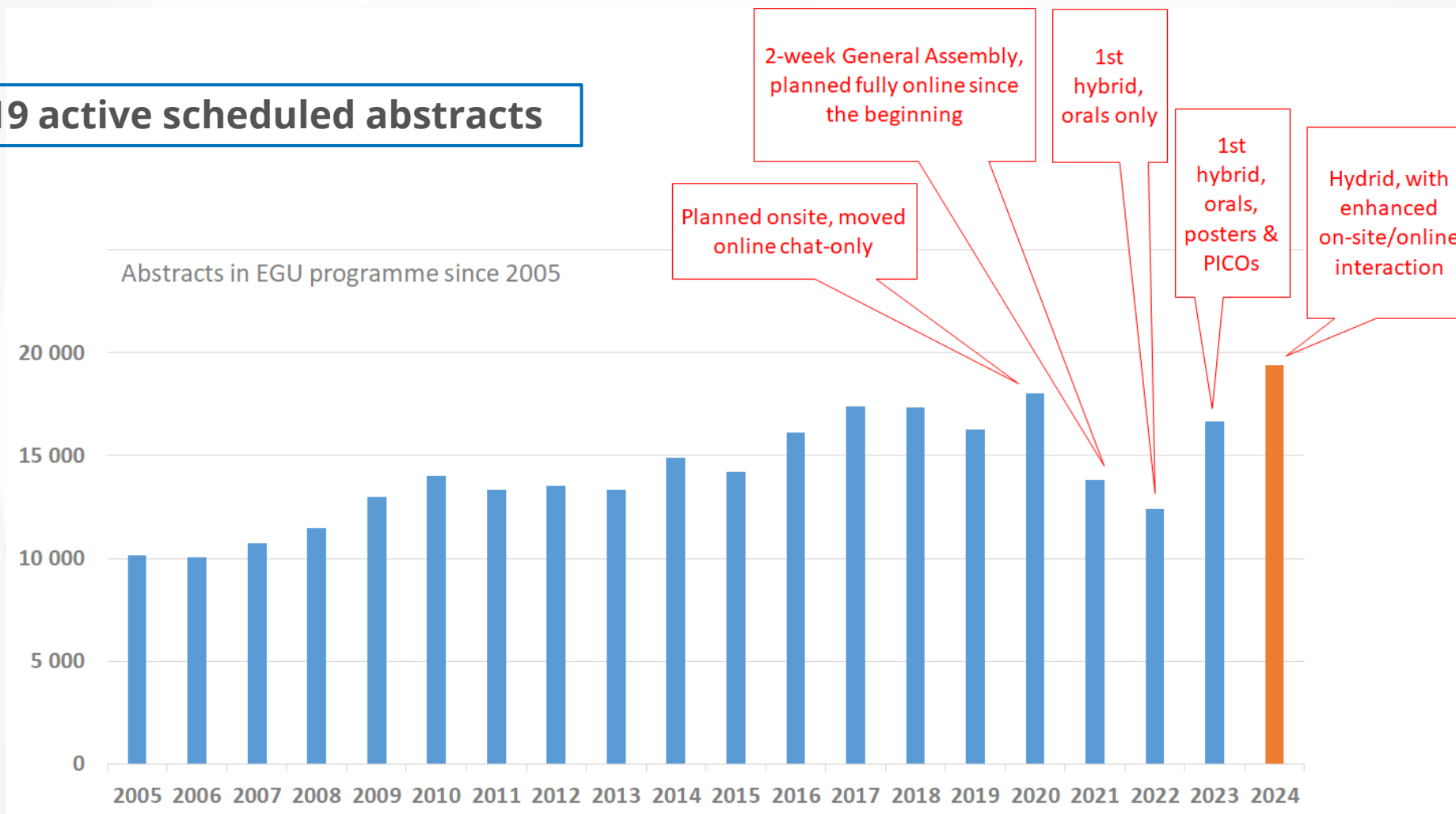
Jane Roussak

EVENTS MANAGER

https://egu24.eu/about/programme_committee_composition.html

EGU24: numbers at a glance (as of 29 March 2024)

19,319 active scheduled abstracts



EGU24: numbers at a glance (as of 4 April 2024)

- 19,319 **active scheduled abstracts**
- 16,746 **paid registrations** (8% for **virtual participation**)
- 50% of **virtual participants benefited from free registration** (Undergraduate/master students & Low- & lower-middle income countries)
- 37% of on-site participants and 52% of virtual participants are **PhD candidates, Master or Undergraduate students**
- 2% of on-site participants and 24% of virtual participants are from **Low & Lower-middle income countries**
- **Gender** (Female / Male / Non-binary): On-site (39% / 58% / 0%) & Virtual (42% / 54% / 1%)
- 112 **different countries** for on-site participation; 90 for virtual participation



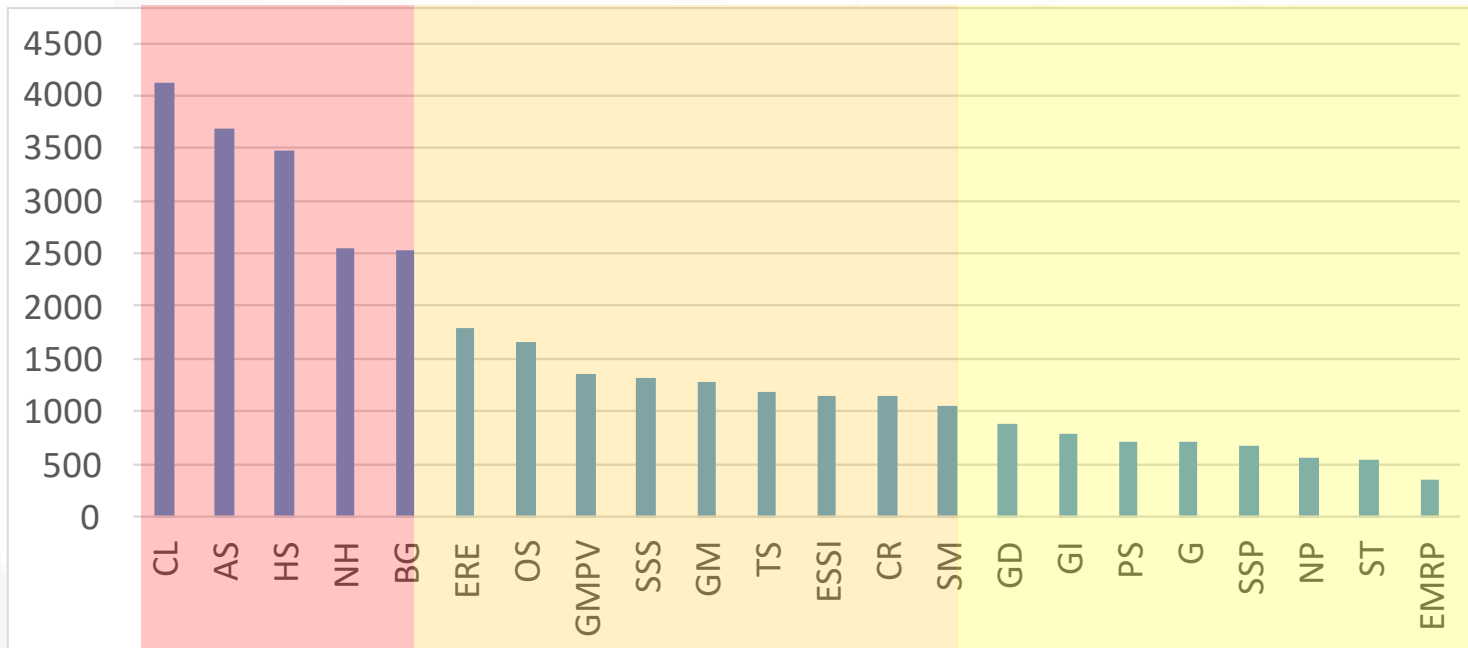
EGU23 main entrance

Photo credit: Pfluegl 2023

EGU24: numbers at a glance (as of 4 April 2024)

EGU Division/PG affiliation of paid registrations

(note: a participant can choose more than one division of affiliation)



EGU24: numbers at a glance (as of 29 March 2024)

- **1,025 active sessions** (+11% EGU23):
 - 675 division-led sessions, of which 42 are ITS sessions
 - 17 Education and Outreach Sessions (EOS) + GIFT workshop
 - 61 Short Courses + 2 Artist in Residence workshops
 - 39 Medal and Award Lectures
 - 6 Union Symposia and 10 Great Debates
 - 152 Townhall & Splinter meetings scheduled
- **ECS Networking, Science for Policy, and EDI Committee events**

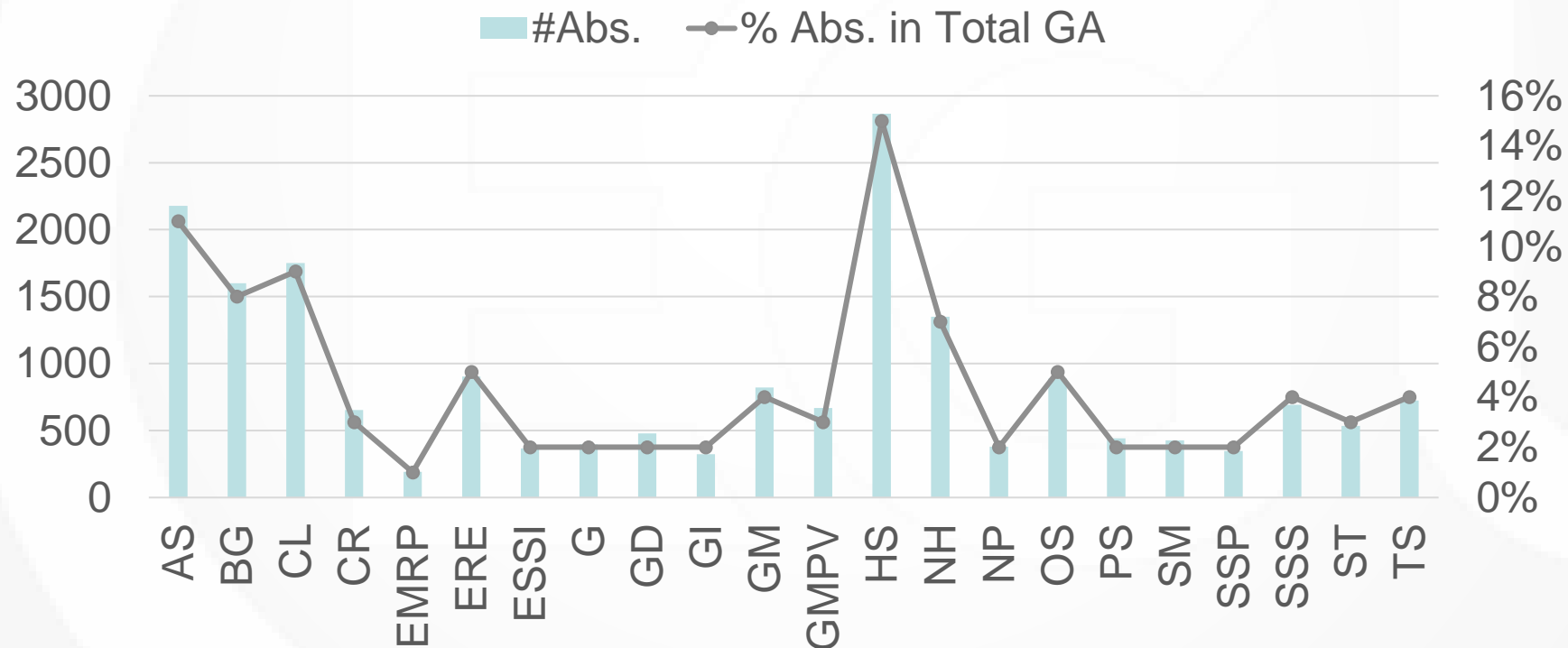


EGU23 oral presentation
Photo credit: Pfluegl 2023

More on: <https://www.egu24.eu/>

EGU24: numbers at a glance

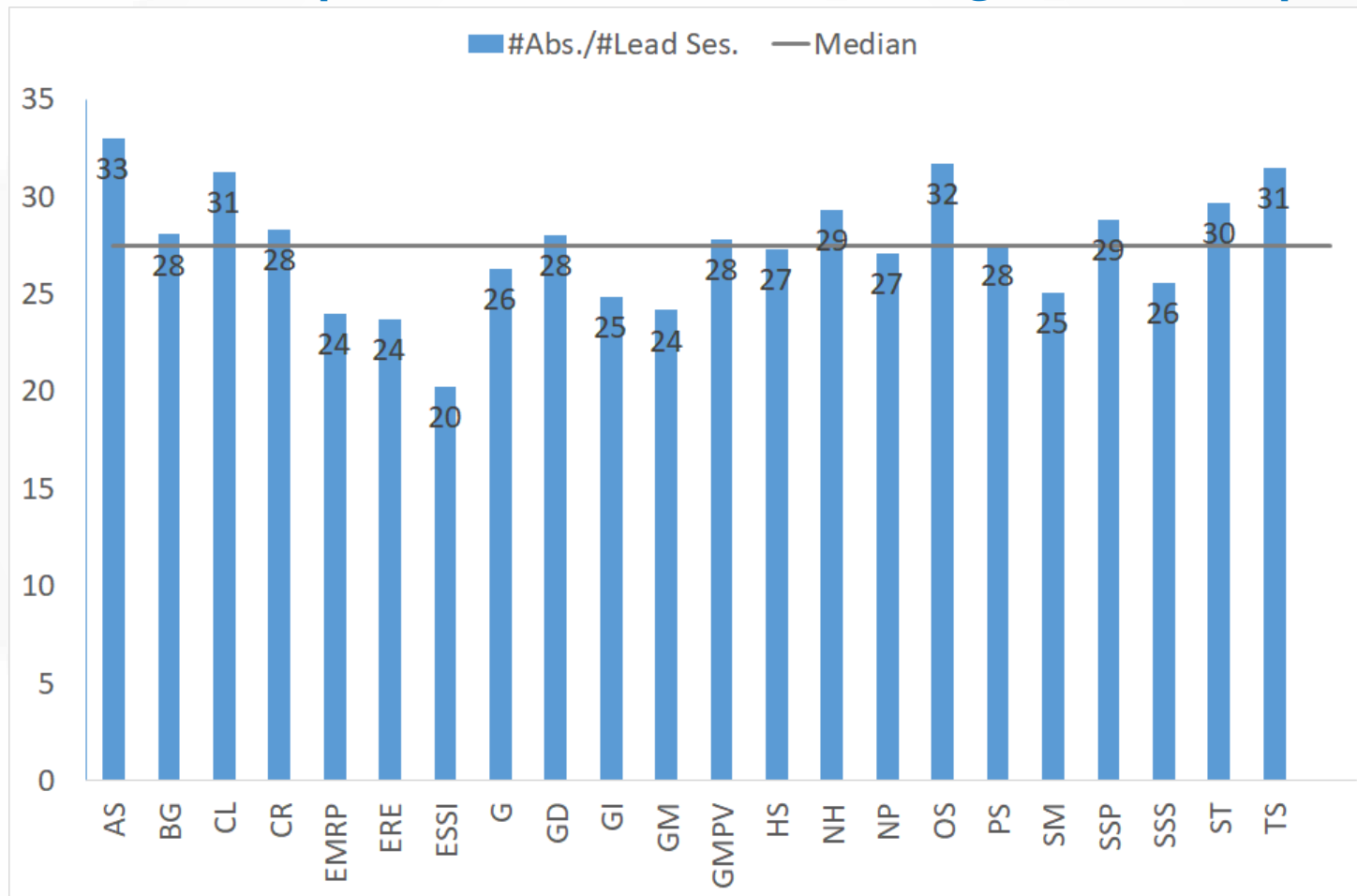
Abstracts per Programme Group (PG)



(as of 24 March 2024)

EGU24: numbers at a glance

Abstracts per (lead) session in each Programme Group



(as of 24 March 2024)

The Division on Geosciences Instrumentation and Data Systems (GI)

• **Mission:** To be a forum for advancements in:

- Instrumentation
- Technology
- Methods
- Data handling

• **Across all fields of geoscience**

• **Benefits:**






















- **Cross-pollination of ideas:** Encourage specialists to share knowledge, leading to:
 - Utilizing advancements from one field in others
 - Fostering collaboration
 - Avoiding redundant development efforts
 - Enabling innovative approaches

• **Interdisciplinary Focus:**

- GI sessions often co-organized with other divisions
- Encourages researchers to consider:
 - Value of multidisciplinary discussions
 - Balancing specific interests with broader impact






President	Pietro Tizzani 	
Deputy President	Raffaele Castaldo 	
Programme Group Chair	Pietro Tizzani 	
Science Officers	 	<p>Nicola Masini </p> <p>Cultural and Archaeological Heritage</p>
	   	<p>Dirk Fleischer </p> <p>Data Systems and Publishing</p>
	   	<p>Andrea Vitale </p> <p>Gravimetric, Magnetic and Electromagnetic, instrumentations</p>
		<p>Jean Dumoulin </p> <p>Infrastructure instrumentation and monitoring</p>
		<p>Ari-Matti Harri </p> <p>Instrumentation for Polar Regions and Harsh Environment</p>
		<p>Giuseppe Solaro </p> <p>New technological platforms for Earth Observation</p>
		<p>Luca D'Auria </p> <p>Seismic, Acoustic sounding, geodetic and geochemistry Instrumentations to geo-environmental surveillance networks</p>
	<p>Bernard Foing </p> <p>Space, Oceanic and Atmosphere Instruments</p>	



63 Voting participants at the 2024 GI Division Assembly:

<p>OSPP Co-ordinator</p>	<p>Andrea Vitale APPROVED by ASSEMBLY 2024</p>
<p>Outreach</p>	<p>Vincenzo De Novellis ✉ News, Media, Education and Public</p>
<p>Sub-Programme Groups</p> 	<p>Vira Pronenko ✉ GI1 – General sessions on geoscience instrumentation</p> <p>Masatoshi Yamauchi ✉ GI2 – Data networks and analysis</p> <p>Bernard Foing ✉ GI3 – Planetary Atmosphere and Ocean instrumentation system</p> <p>Susi Pepe ✉ GI4 – Earth Observation systems & instrumentation</p> <p>Francesco Soldovieri APPROVED by ASSEMBLY 2024 GI5 – Earth surface and subsurface methods of investigation</p> <p>Jean Dumoulin APPROVED by ASSEMBLY 2024 GI6 – Multidisciplinary sessions on geoscience instrumentation, data networks, and analysis</p>
<p>ECS Representative</p>	<p>Veronica Escobar Ruiz ✉</p>
<p>ECS Co-Representative</p>	<p>Andrea Barone ✉</p>

PG abstract statistics

Active scheduled		948
Granted supports	None:	945 (100%)
	ECSTS:	0 (0%)
Presentations	Orals:	402 (42%)
	Posters on site:	402 (42%)
	Posters virtual:	42 (4%)
	PICO:	102 (11%)
Author identification specifics	ECS:	465 (49%)

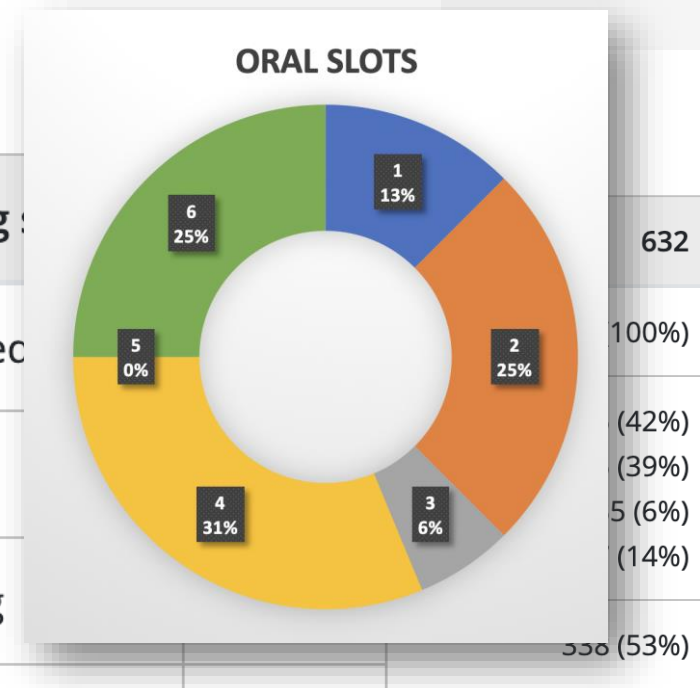
PG abstracts

Active scheduled		
Granted supports		
Presentations		
Author identification specifics		

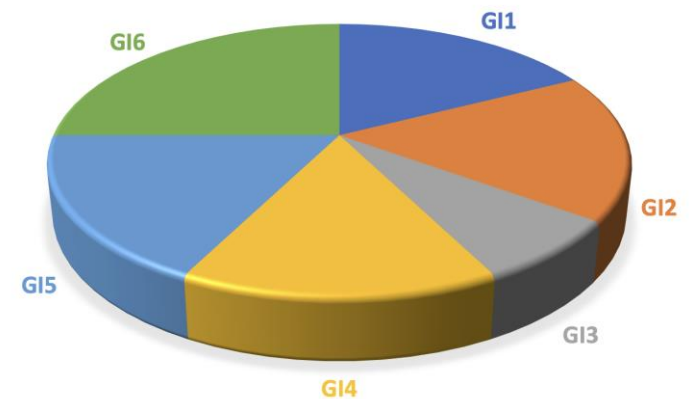
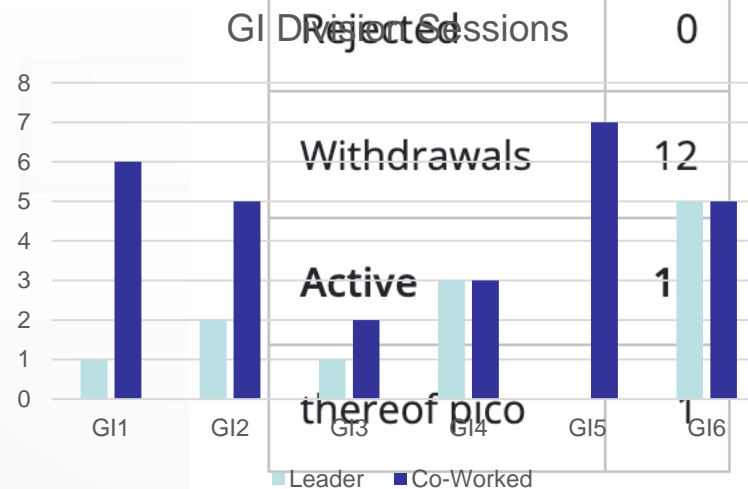
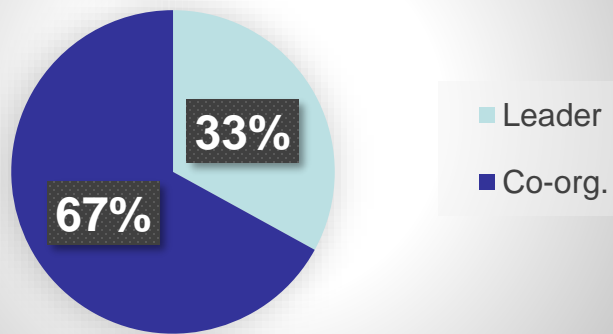
Session statistics

PG session statistics	
Proposed	23
Added	1
Pending	0
Rejected	0

Meeting	
Proposed	
Added	
Pending	
Rejected	

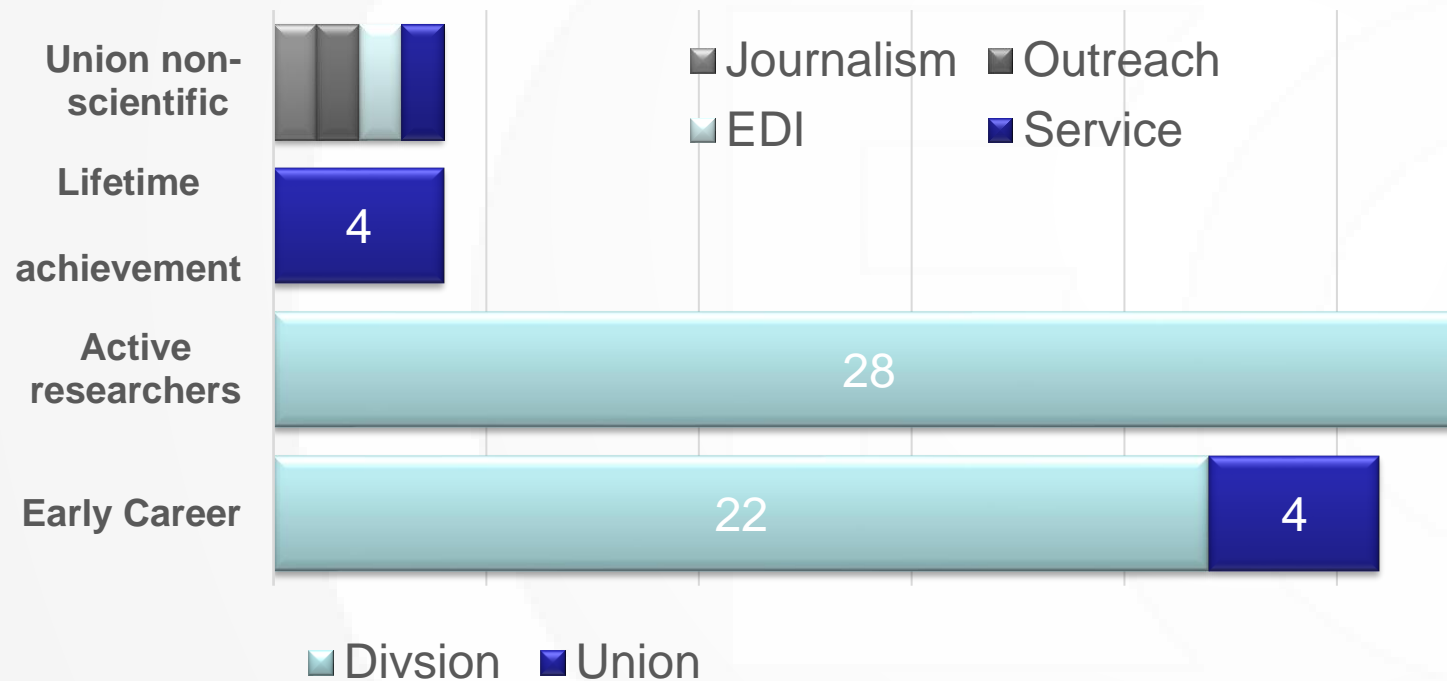


Geosciences Instrumentation & Data Systems



EGU awards & medals

EGU features an extensive awards and medals programme on all career stages



- 4 **Union Awards** for services for the union, science journalism, outreach, and EDI
- 4 prestigious **Union Medals**, recognising excellence in scientific research
- 28 **Division Medals**, awarded for significant disciplinary contributions in Earth, planetary and space sciences
- 4 **Union** and 22 **Division Awards** for Outstanding Early Career Scientists



How to become an awardee?

- » **Nominations are exclusively by EGU members (no self nomination)***
- » Candidates do not need to be EGU members.
- » Individual award and medal committees are then evaluating the nominations selecting the most deserving candidate based on **scientific achievements****.

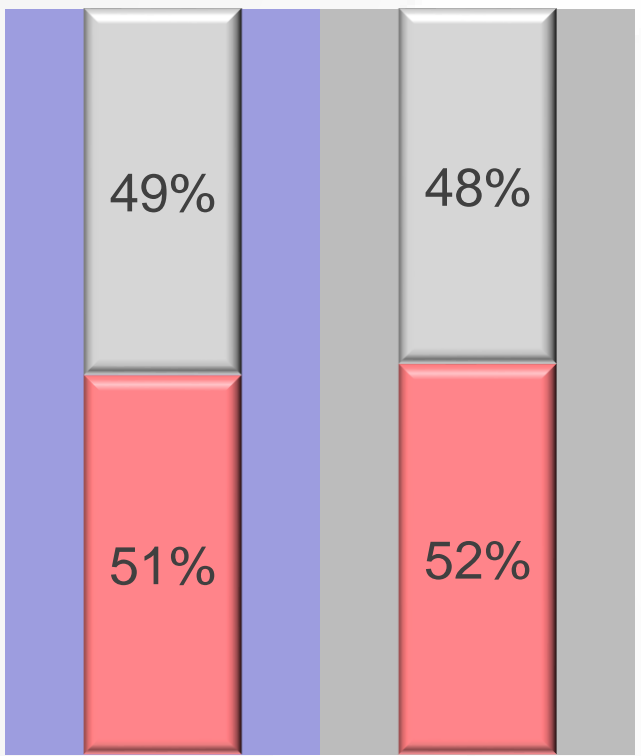
* An exception is one award to promote excellence in journalism allowing nominations from non-members and self nominations

** plus one medals each for journalism, outreach and service to the union

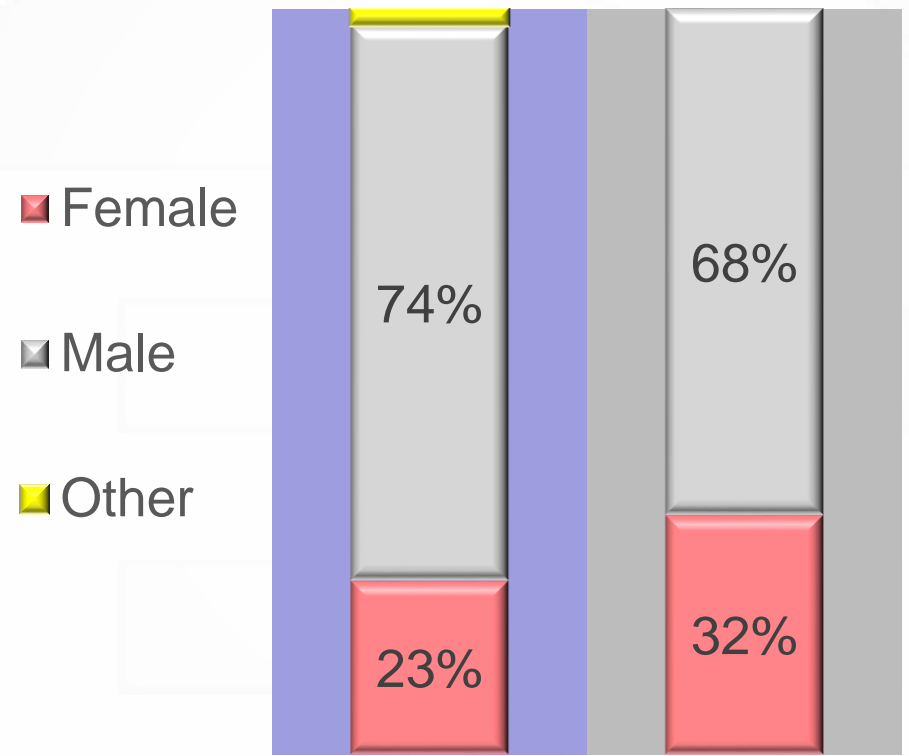


EGU awards & medals

Some statistics for the 2024 awards



Nominations Awarded
Early Career Awards



Nominations Awarded
Union and Division award

More information on awards

EOS3.1
Poster EGU24-1620
Equality of opportunities in geosciences: The EGU Awards Committee experience
Wed, 17 Apr, 10:45–12:30
Hall X1 | X1.63

Meet the chair of the Awards Committee
Mon, 15 Apr, 17:30–18:00 EGU booth – Hall X2



EGU awards & medals

How to nominate

Where: <https://www.egu.eu/awards-medals/nominations/>

When: Deadline is **June 15 every year**

What is required



	Division and Union medals	Outstanding Early Career Scientists Awards
Nomination letter	5000 characters (including spaces)	2500 characters (including spaces)
Curriculum Vitae	2 pages	1 page
Selected bibliography	2 pages	½ page
Supporting letters	3-5 5000 characters (including spaces)	None (multiple nominators possible)

Nomination and supporting letters via on-line form

Head on over to the EGU Booth!

- Learn about EGU activities
- Meet members of the EGU Council & Committees
- Cast your vote for the photo competition
- Browse through EGU merchandise... and more!



Hall X2

Did you know that we help teachers attend EGU24 for the Geosciences Information for Teachers (GIFT) workshop?

The GIFT programme offers secondary (and primary) school teachers the opportunity to upgrade their knowledge in geoscience themes, shortening the time between state-of-the-art science research and textbook information. This initiative is led by the **EGU Education Committee**.

To learn more, visit
www.egu.eu/education



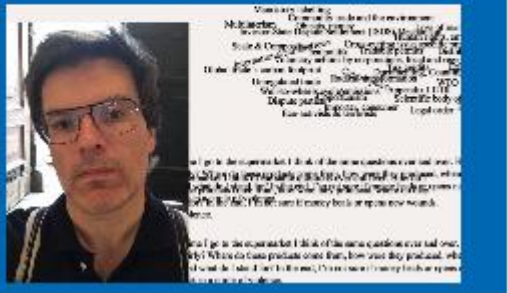
2019 GIFT Workshop
Photo credit: Pfluegl 2019

Art-Science offerings at EGU24

EGU24 Artists in Residence

visit their booths in Foyer D!

Ilias Tsagas
Poet



Lucía Pérez-Díaz
Illustrator




Mon, Tues, Thurs & Fri
18:00-20:00 in room E1

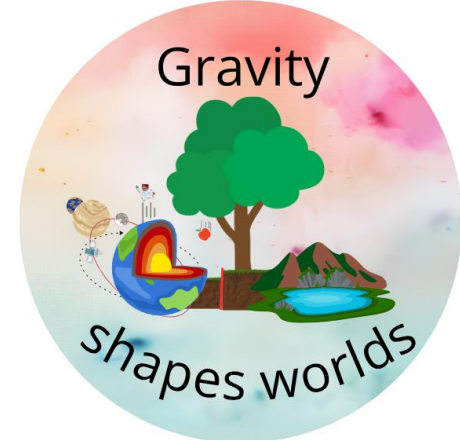
Art-Science sessions at EGU24:



EGU24 artists raising awareness of EDI in the Geosciences

learn more at their booth in **Hall X2!**

Nkosingiphile Mazibuko
Iziko Museums of South Africa



Childcare Art Exposition



growing gallery located in **entrance of Hall X1**

Divisions represented:
G, GD, PS

The EGU Topical Events Committee announces the call for Training School applications: 6 May - 17 June 2024



Photo credit: [V. De Micco, 2024](#)

The EGU provides financial support to training school organisers in order to facilitate participation of early career scientists and/or to support the quality of the school through field trips or by inviting exceptional lecturers.

Learn more at
www.egu.eu/meetings/training-schools





Join a Science for Policy Session at EGU24!

Find out how you can more effectively engage with policymakers and how your research can have policy impact

EGU's Science for Policy Help Desk
Every day, 12:00-13:00 at the EGU booth

See the full EGU24 Science for Policy Programme





Subscribe to the EGU's Science for Policy Newsletter!

Monthly updates on:

- EGU's #Sci4Pol activities
- Opportunities to engage with policymakers
- Science-policy events and workshops
- Geoscience-relevant policy news



EGU 2024
Participants
receive a **discount**
of **50 %** on the
entrance fee
if wearing their
name badge



The world's
oldest and largest
meteorite exhibition
...and much more!



Open Access Publications



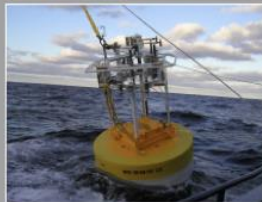
- Open Access Journals
- Interactive Public Peer Review



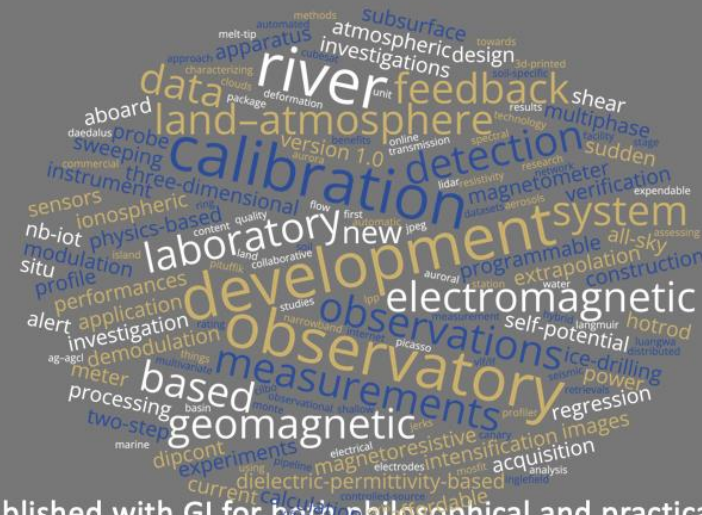
www.egu.eu/publications

100% open access and publicly peer reviewed since 2012!

Geoscientific Instrumentation, Methods and Data Systems



A community-driven journal that in 2023* published extensive, exciting new research on:



“We published with GI for both philosophical and practical reasons. Philosophically, our team generally prefers to support society-affiliated journals and practically, we need to publish at a venue that is open-access, with a team of scientific editors that has the thematic diversity to handle our specialized article. Together, this made GI a clear choice for us.”

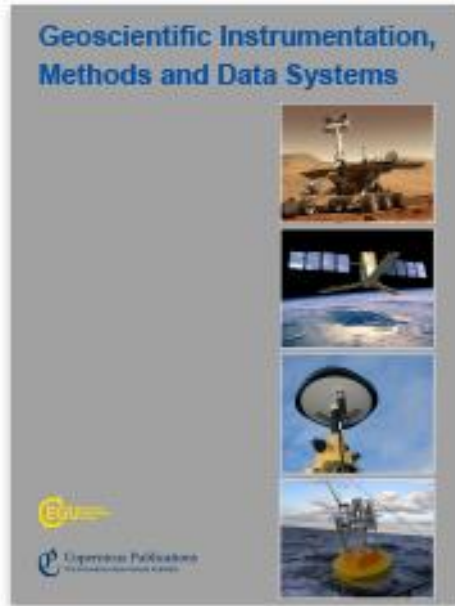
William Colgan, author 2023
doi.org/10.5194/gi-12-121-2023

Key Journal Metrics:

Impact Factor (2022) :	1.8
5-year Impact Factor (2022):	1.6
Papers published in 2023:	19
Number of countries where authors were based in 2023:	18
Number of countries where editors were based in 2023:	16



*The word cloud displayed was generated using all the titles of articles published by the journal in 2023.



Geoscientific Instrumentation, Methods and Data Systems (GI)

Journal Report to GI DM

OUTLINES

15th April, 2024

1. Journal Scope
2. Journal Summary
3. Questions to address at the 2024 Editorial Meeting

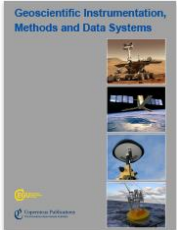
The current executive editors:

Jean Dumoulin Håkan Svedhem

Francesco Soldovieri (since February 2024)

Salvatore Grimaldi (step down mid 2023)

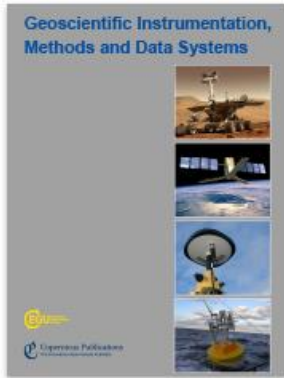
Challenging Mission: Multi-Trans-Inter Disciplinary Journal



It covers all aspects of instrumentation, methods and data systems across all fields covered by the EGU. A unique feature of the journal is the emphasis on the synergy between science and technology that facilitates advances in GI.

- concepts, design, and description of instrumentation;
- concepts, design, and description of data systems;
- retrieval techniques of scientific products from measurements;
- calibration and data quality assessment;
- uncertainty in measurements;
- newly developed and planned research platforms and community instrumentation capabilities;
- major national and international field campaigns and observational research programmes;
- new observational strategies to address societal needs in areas such as monitoring climate change, preventing natural disasters, and urban health monitoring;
- networking of instruments for enhancing high temporal and spatial resolution of observations;
- urban instrumentation and remote sensing;
- model-calibrated remote sensing;
- advanced data analytics and assimilation methods;
- multi-scale and multi-physical sensing;
- new concept in measurements system architecture;
- Internet of things (IoT) and massive low-cost instrumentation;
- citizen science data management;
- human sensing.

CURRENT SITUATION



Journal report 2023

33
Manuscripts submitted (report year)

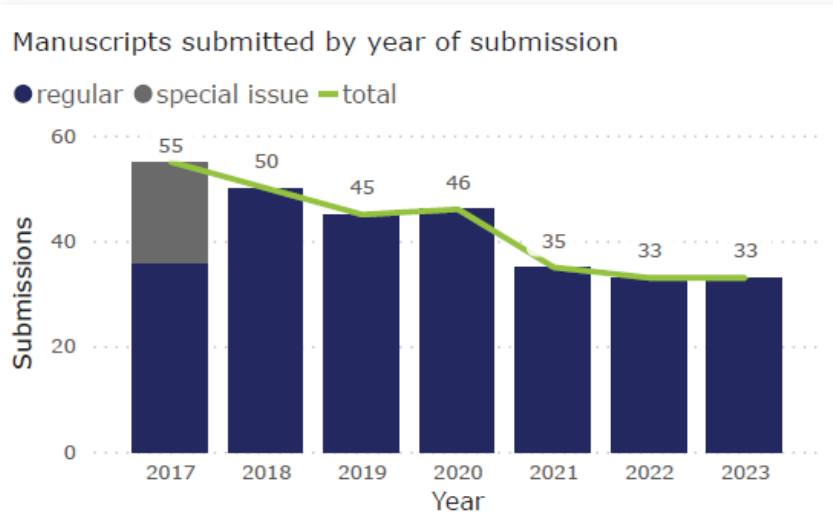
0%
Relative change (pre-report year)

490
Manuscripts submitted (all time)

19
Articles published (report year)

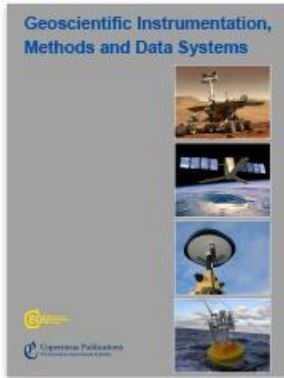
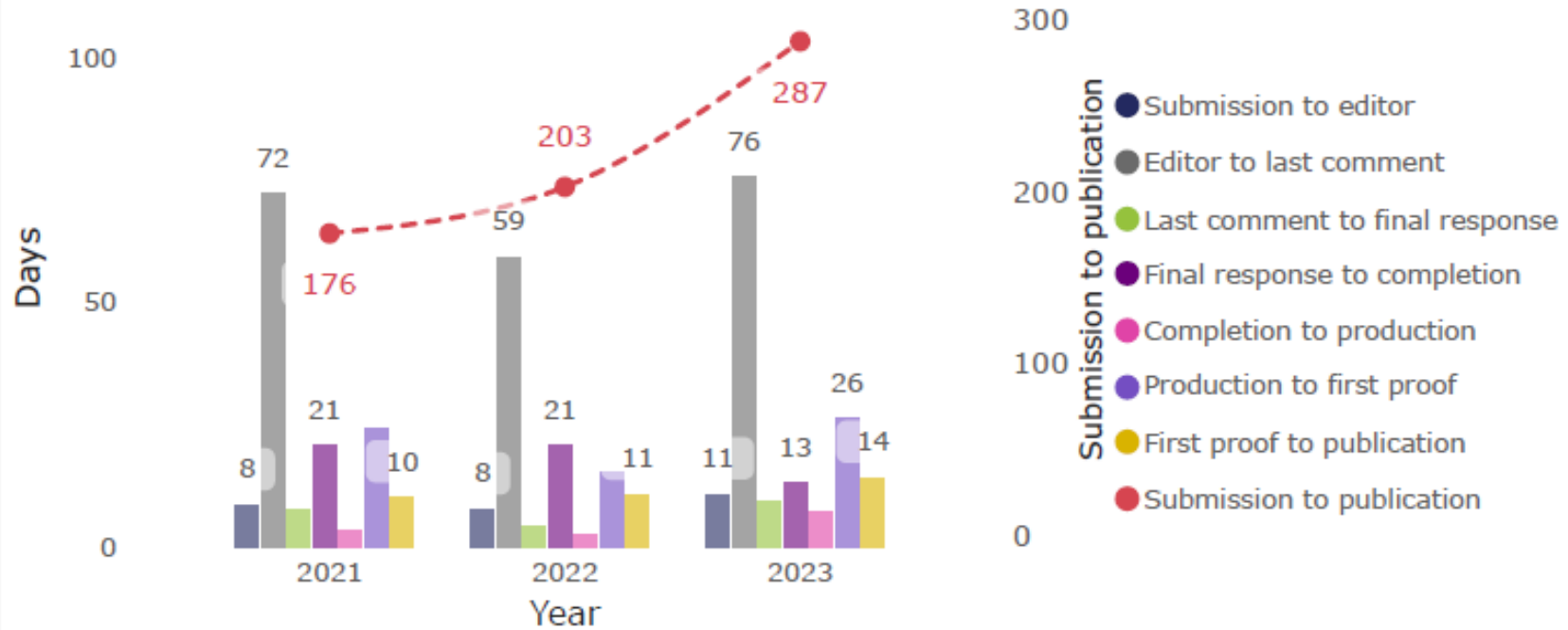
-32%
Relative change (pre-report year)

356
Articles published (all time)



CURRENT SITUATION

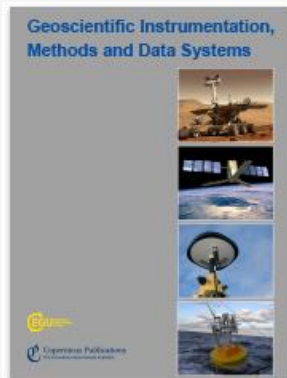
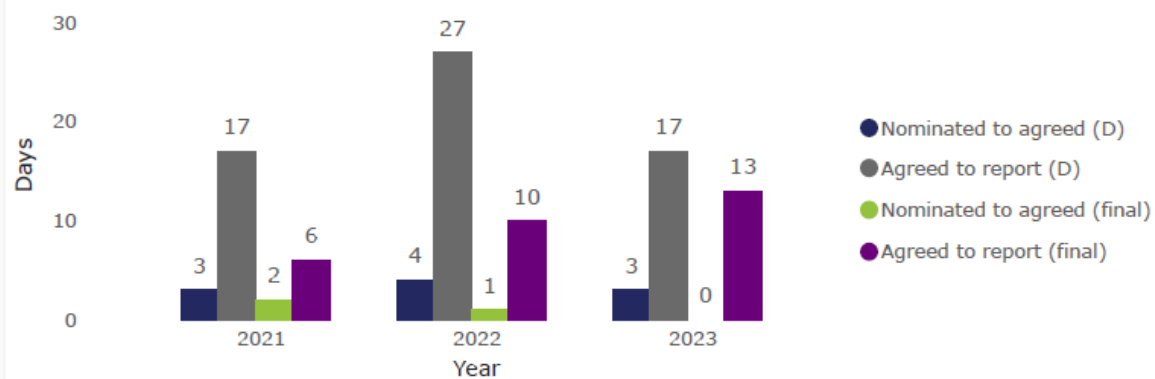
Processing times (days median) by year of journal publication



CURRENT SITUATION

(3/3)

Review statistics (days median) by year of journal publication



Renewing AE board

For topics in :

- Hydrology
- Geomorphology
- Citizen science
- Signal and image processing
- Artificial Intelligence
- ...

CRITICAL ISSUES

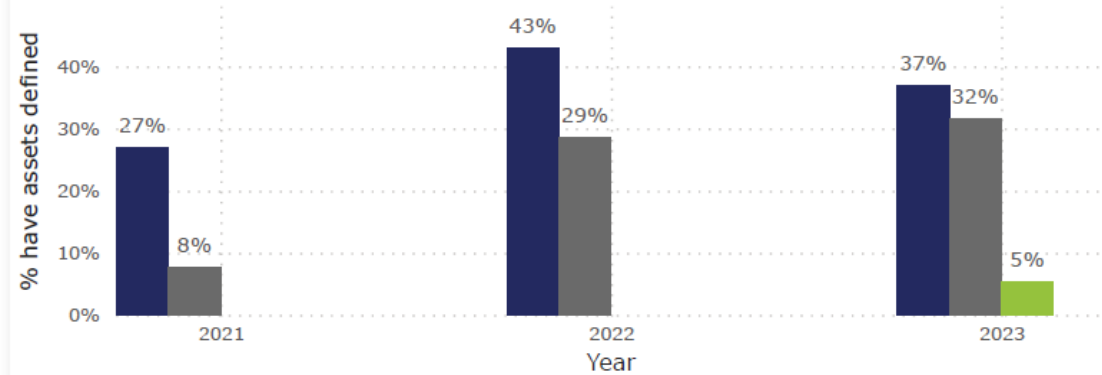


Considering a Mix of early & advanced career
scientist

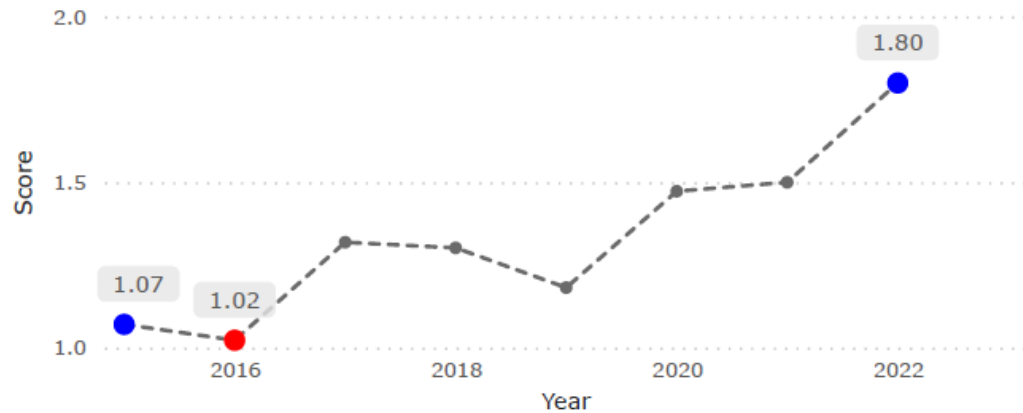
Provider and Metric	Score	(year)
Centre for Science and Technology Studies		
SNIP	<u>0.78</u> ↑	2022
Clarivate Analytics		
JIF	<u>1.80</u> ↑	2022
JIF 5-year	<u>1.60</u> ↓	2022
Elsevier		
CiteScore	<u>3.00</u> ↑	2022
CiteScoreTracker	<u>3.70</u>	2023
Scimago H-index	<u>24.00</u> ↑	2022
SJR	<u>0.35</u> ↓	2022
Google Scholar		
Google h5-index	<u>17.00</u> ↑	2023
Google h5-median	<u>21.00</u> —	2023

Assets to published articles

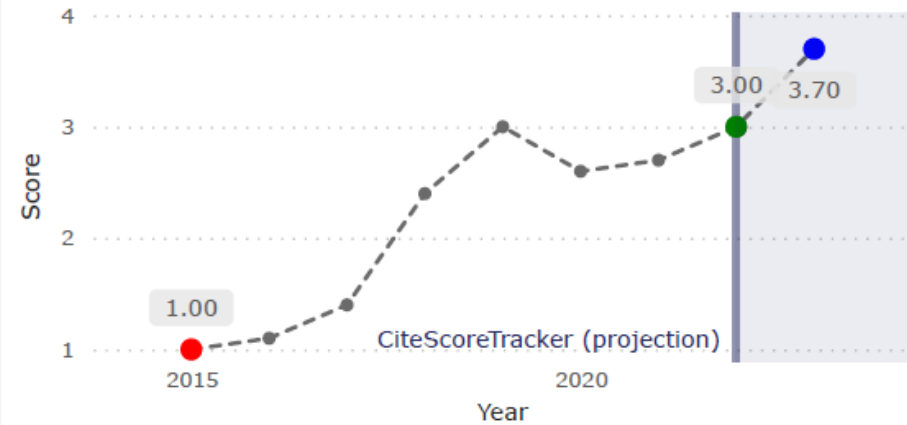
● Data ● Code ● Video supplements ● Video abstracts



JIF (Clarivate)

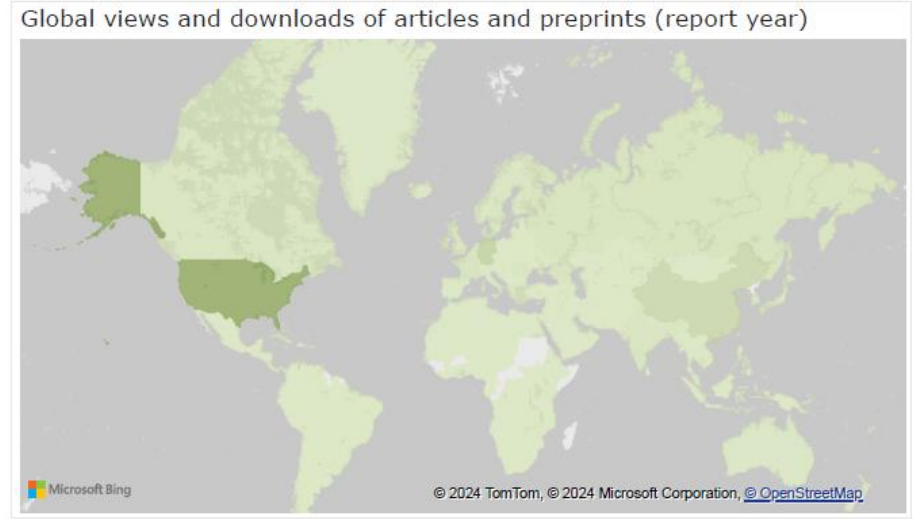
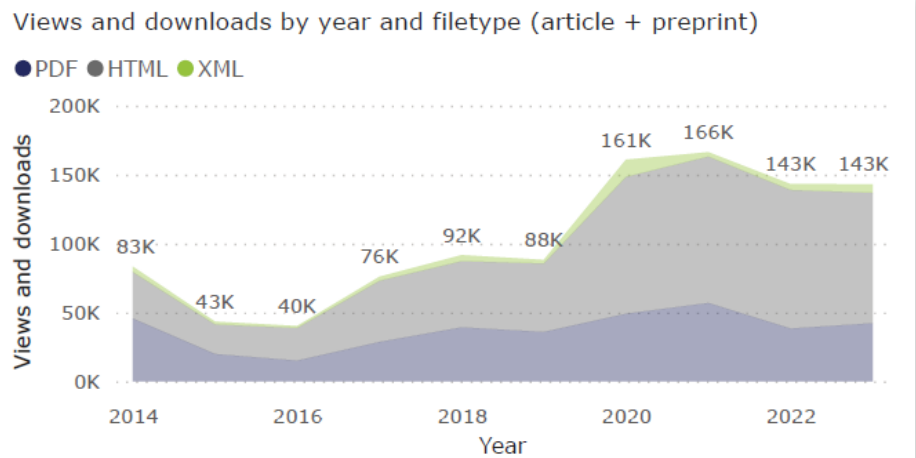


CiteScore (Elsevier)



Geoscientific Instrumentation, Methods and Data Systems is indexed and archived in the following databases (as of April 2024):

ADS	Chemical Abstracts	CLOCKSS	CNKI	COPE	Crossref	dnb	DOAJ	EBSCO
Ei Compindex	Gale	GBA	GeoRef	GoOA	Google Scholar	GWLB	J-Gate	Library of Congress
Portico	ProQuest	SCIE	Scopus	SHERPA/RoMEO	WPI			



Follow-up of 2022&23 listed actions

- The Associate Editor group still need to be renewed, and enlarged above all for specific disciplines :
Underground instrumentation & measurement systems, Ground instrumentation & measurement systems, Airborne Instrumentation & measurement systems, Space Instrumentation & measurement systems, Signal & Image processing, Monitoring systems, Numerical system Engineering, Urban Monitoring, Multi-scale monitoring, AI, ...
 - ➔ involving young and active researchers;
- A turn over of AEs ➔ Pursue the renewing of the editorial board to **strengthen it**
- Toward 2 Associate Editor Calls (with only 2 days of lag). Following that, proceed with the direct assignment of the AE by EE. ➔ **Improved now**, EEs)
- AEs should handle a minimum of 1-2 manuscript per year.
- APC reduction for early career scientist.
- Special issue linked to the EGU Division, to the EGU General Assembly and to multidisciplinary topics (i.e. Citizen science) still has to be encouraged.

Our journal is multidisciplinary

- Difficulty for the present three EE's to appropriately cover all the topics
- The addition of one more EE should improve the coverage and lower the workload
- In addition, Håkan Svedhem (co-founder of the GI journal in 2011) has indicated his desire to step down as EE, but will continue acting as AE.

Thus, there is a need for one to two new EE's in the short to medium term

- New EE's should have significant experience from editorial work, preferably having worked actively for some time as AE for the GI journal or a similar journal (EGU or non-EGU)

**EE's are appointed by the EGU council on
recommendation from the EGU Publication committee**

Early Career Scientist

- » An Early Career Scientist (ECS) is a student, a PhD candidate, or a practising scientist who received their highest certificate (e.g. BSc, MSc or PhD) within the past seven years. The seven-year period can be extended to allow for periods when the scientist was not working in science because of, but not limited to, caring and/or parental responsibilities, disability, personal illness, community obligations or national service.
- » For the purpose of the awards the nominee should satisfy one of the above criteria by 1 January of the year when the award is presented.

ECS representatives

Geosciences Instrumentation and Data Systems



Veronica Escobar-Ruiz (Rep)
Research Support Scientist
(University of Reading)

Andrea Barone (Co-Rep)
Technologist (IREA - CNR)



Aim

Promote the importance of Instrumentation and Data Analysis in Geoscience

Objectives

1. Create more visibility of the GI Division
2. Increase number of members
3. Provide a representation of GI ECS in the EGU GA

ACHIEVEMENTS



1. Create more visibility of the GI Division
 - Campfire 2023 - *Instrument Technology and its Application in Geosciences*
2. Increase the number of members
 - *Involve members through posts on Rep social networks (Twitter & LinkedIn)*
3. Representation of GI ECS in the GA
 - *Natural physical processes monitoring: Geo-instruments application and complex data analysis (GI 6.3) - merged GI 6.5*
 - Transferable skills: what are they and do I have them? – SC 4.11

COMING EVENTS

- Campfire(Jun-July 2024)

The role of AI in Geo-instrumentation and its advances in Information Systems

- Blogs

Agenda in progress

If you are interested in sharing your research and expanding your network, we are looking for speakers for our next events – please get in touch with us at ecs-gi@egu.eu



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