

Planetary & Solar System Sciences Division Meeting

Stephanie Werner & Stephen Mojzsis

#vEGU21: Engage • Discover • Inspire

21 April 2021



Meetings | Publications | Outreach | www.egu.eu

Agenda

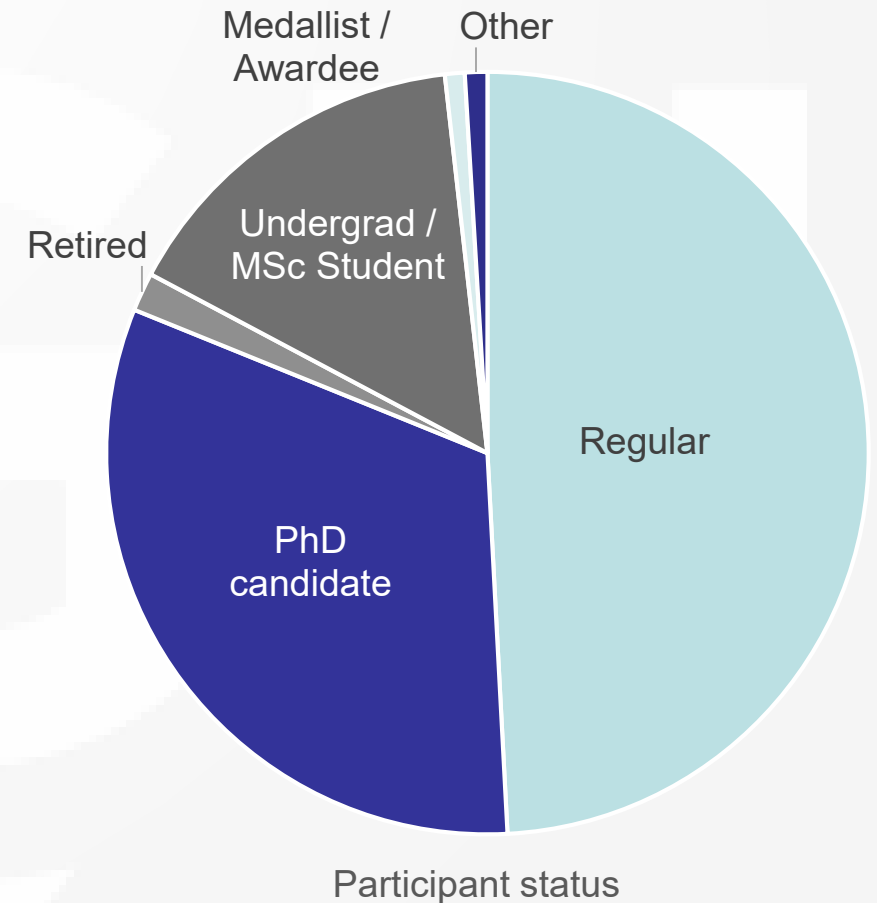
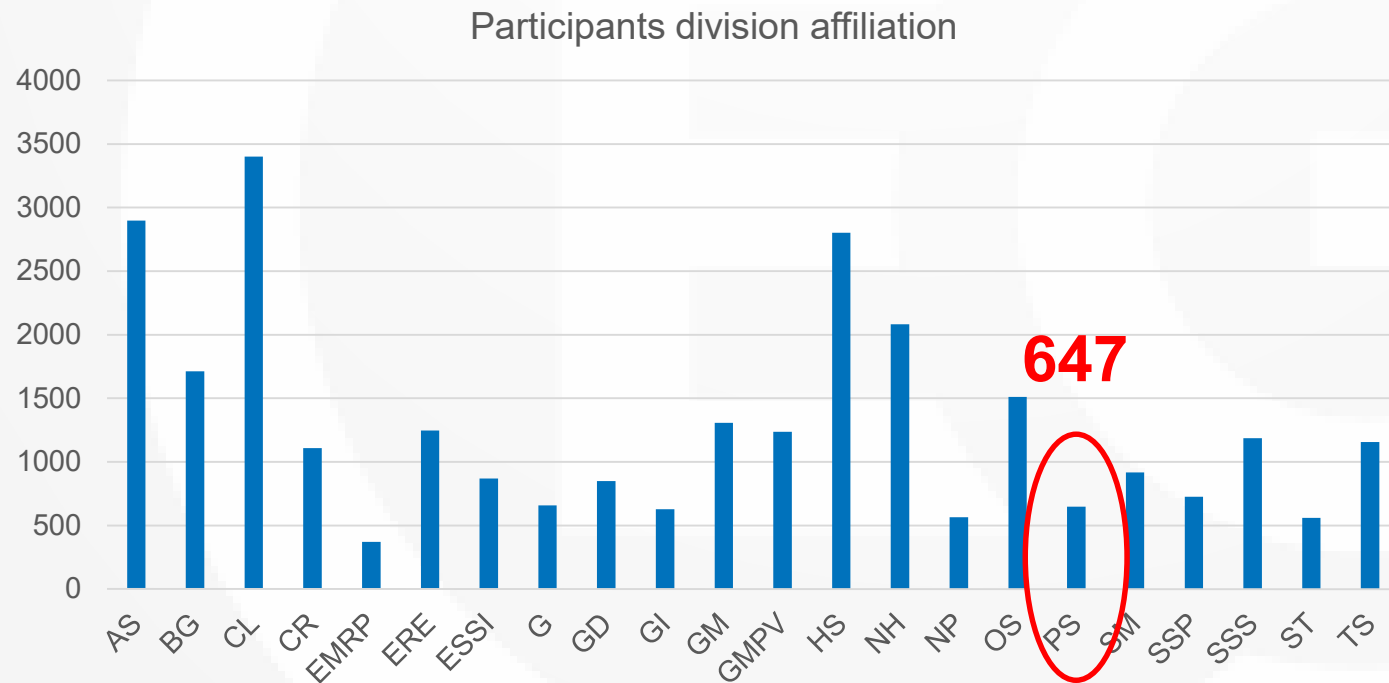
- vEGU21 and PS Program
- Medals/Awards
- ECS
- PS Office
- (Any other business?)

vEGU21: Sessions and abstracts, Schedule

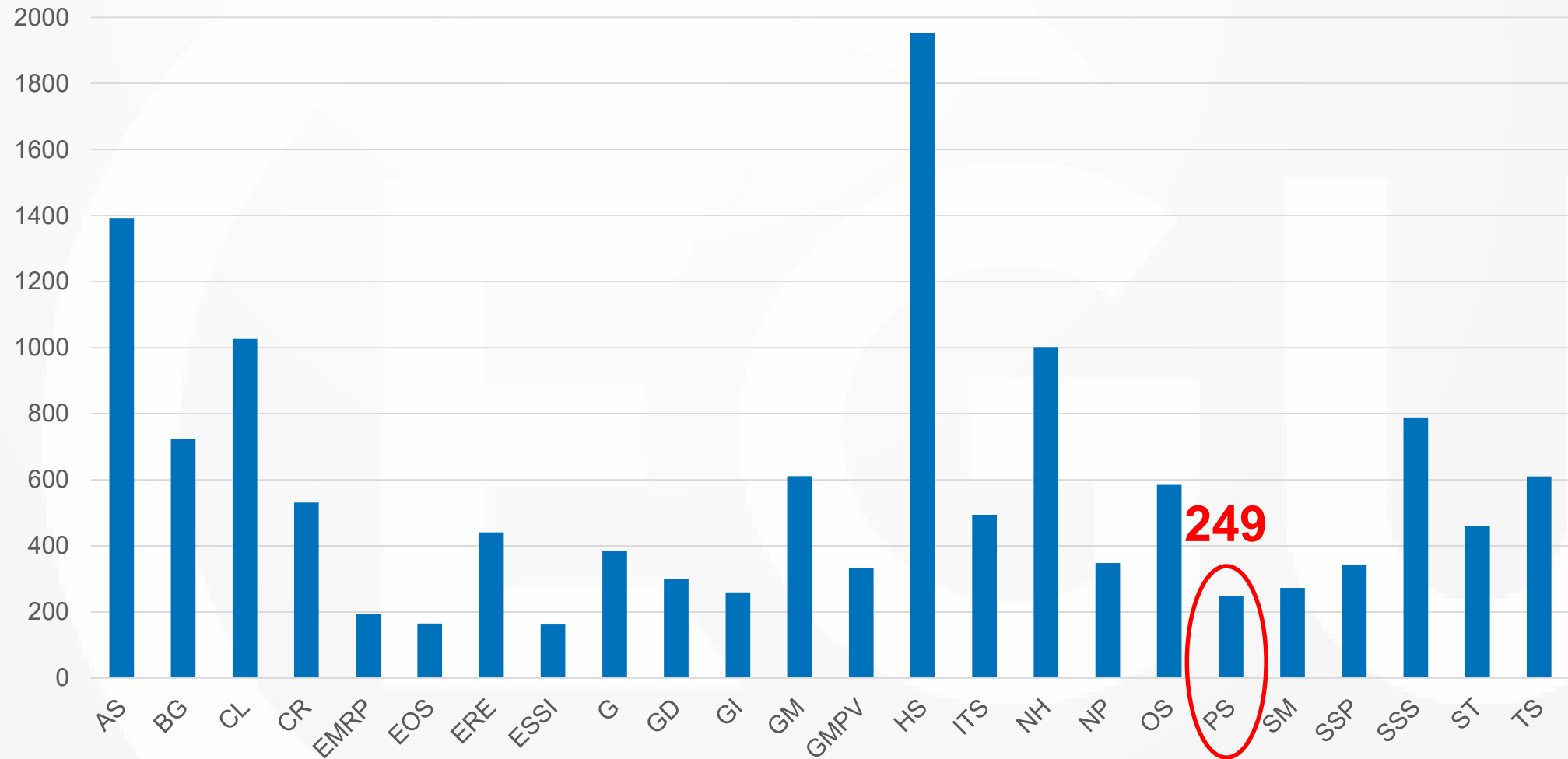
- 13,801 abstracts in programme | -24% relative to 2020
- 843 active sessions | 636 vPICO sessions | 56 Short Courses | 32 Medal and Award Lectures
- Week 1 (19-23 Apr): Union Symposia | Great Debates (Except GDB1) | most Medal and Award Lectures | most Division Meetings | 2 Short Courses per day
- Week 2 (26-30 Apr): 38/39 parallel vPICO sessions | 4 Short Courses per day
- Networking Events (including pop-ups), Townhall Meetings, Side Events during both weeks
- EGU Plenary 19 Apr | Medal & Award celebration 22 Apr | Closing party 30 Apr

vEGU21: Registration numbers and breakdown

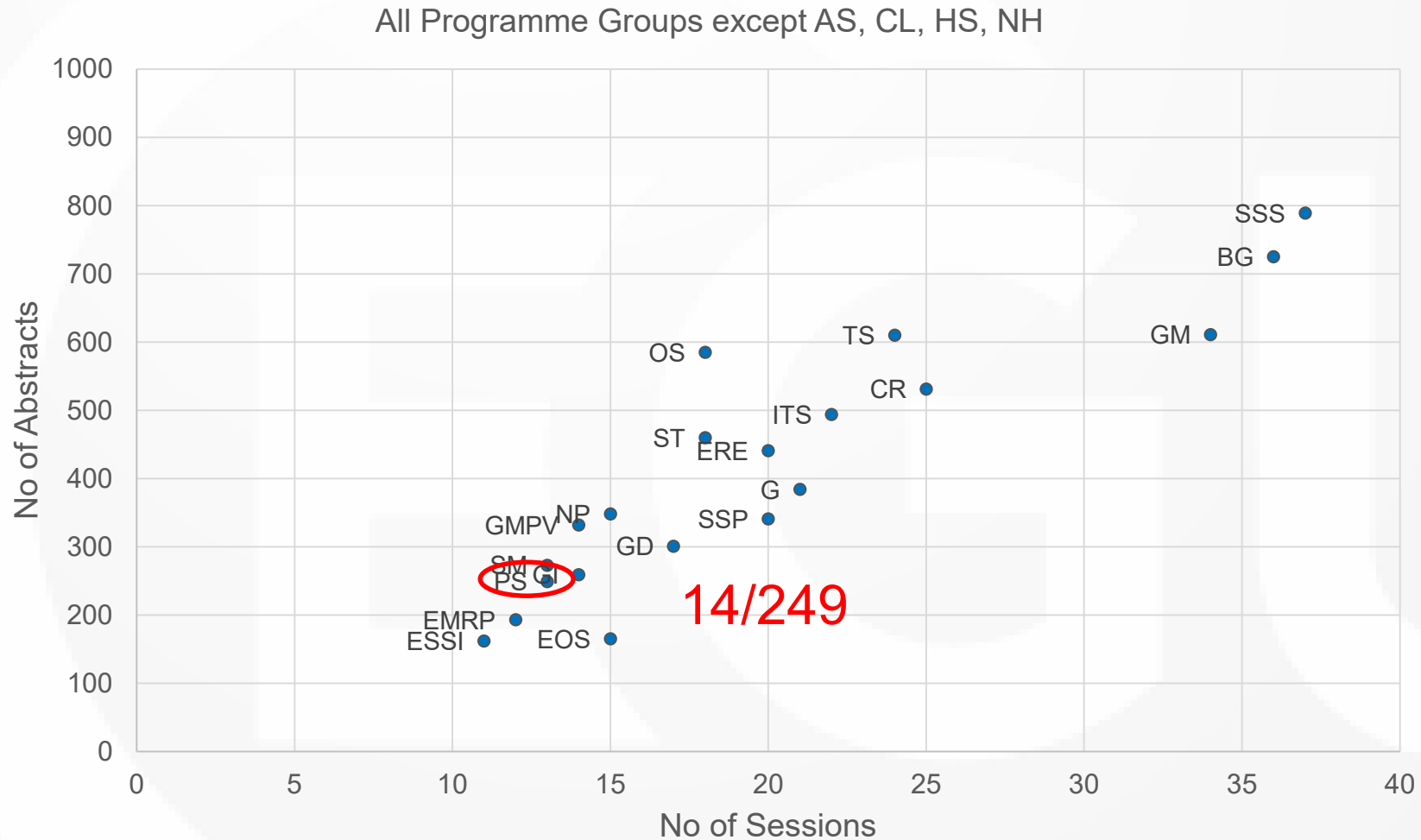
- 13,982 registrations (17 April 2021, 11:30); yesterday 21:00: 15,095
- Participants from 126 countries



vEGU21: Abstracts per Programme Group



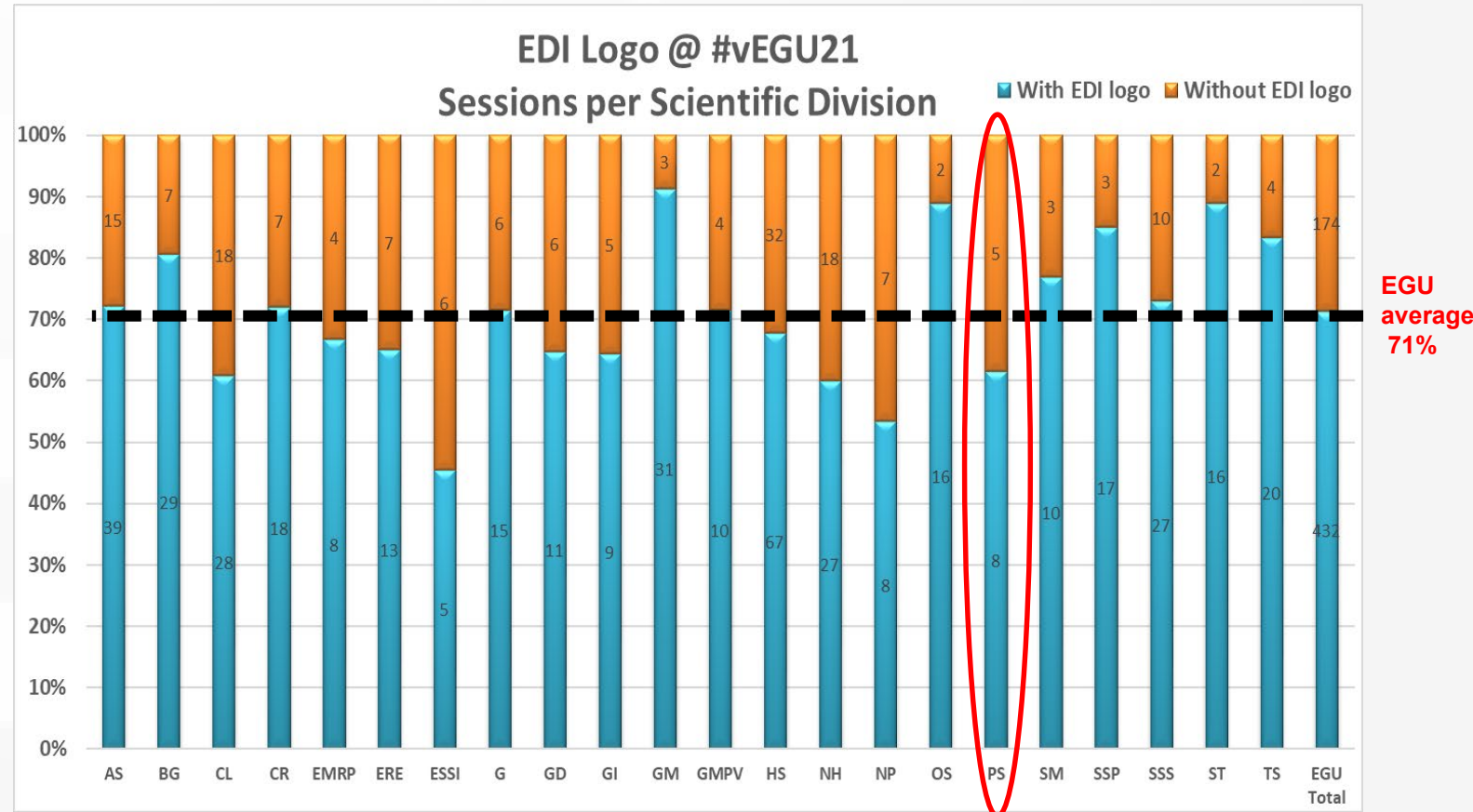
vEGU21: Abstracts / Sessions per Programme Group



8/13 (+co-org 8/10)

Session conveners fulfill all three criteria:

1. Include conveners from **multiple countries and institutes**
2. Have conveners from **different career stages**, including at least one ECS
3. Include conveners that represent **more than one form of gender identity**

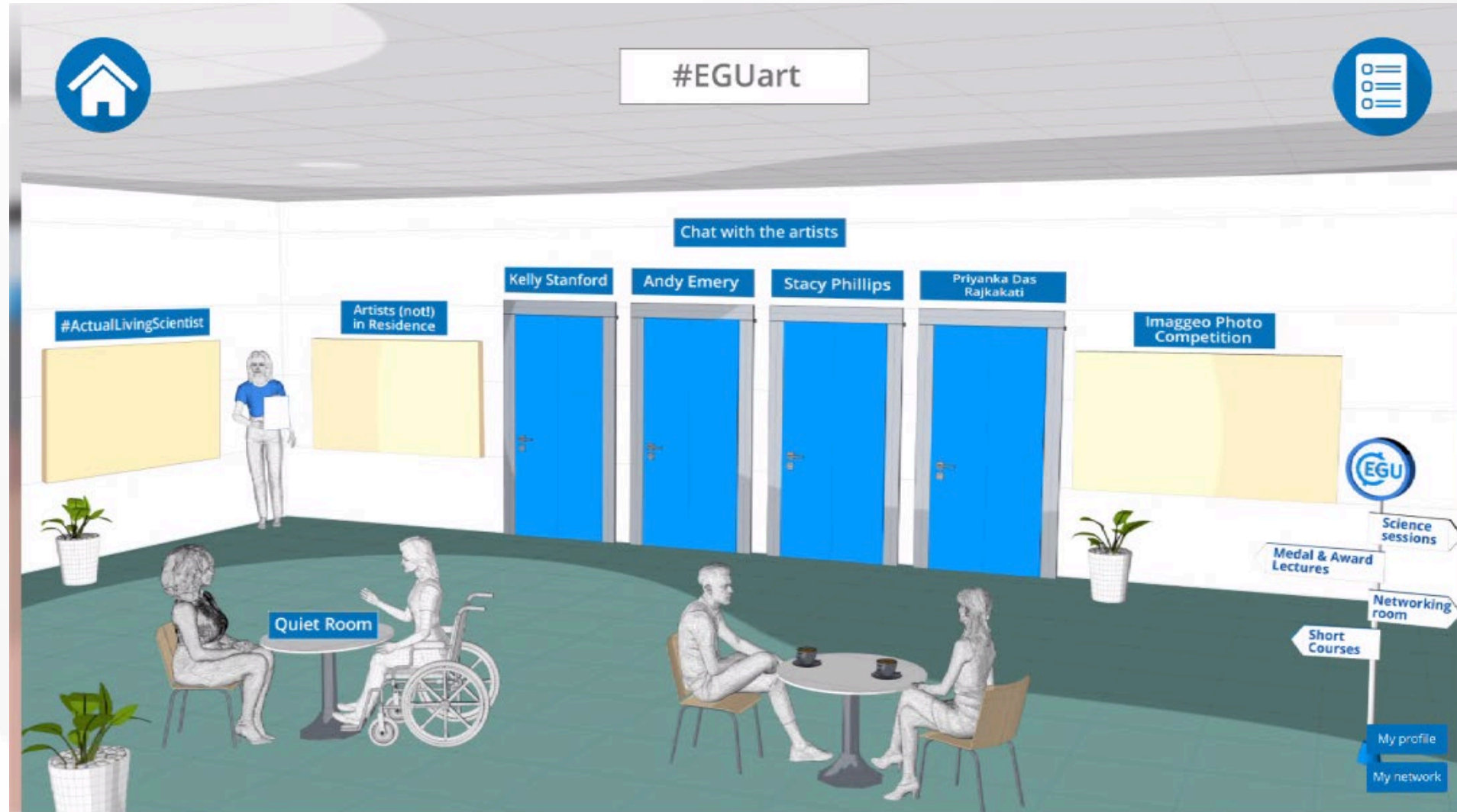


Send suggestions to: edilogo@egu.eu

vEGU21: Equality, Diversity and Inclusion (EDI) Events

- SC2.8 Promoting Diversity in Geosciences | 19 Apr 10:00 – 11:00 CEST
- SC2.9 Practical Recommendations on how to combat discriminatory work environments in the Geosciences | 19 Apr 14:30 – 15:30 CEST
- EOS5.1 Promoting and supporting equality, diversity and inclusion in the geosciences | 26 Apr 11:00 – 14:15 CEST
- GDB5 Bullying in Academia: towards creating a healthy and safe working environment (ECS Great Debate) | 22 Apr 09:00 – 10:30 CEST
- GDB1 Challenging discrimination in the geosciences: Amplifying unheard voices | 26 Apr 15:00 – 16:30 CEST
- NET0 Picture a Scientist Film Screening | 24 - 26 Apr
- EDI Networking Event | 26 Apr 17:00 – 17:30 CEST
- EGU Pride | 19 Apr 17:30 – 19:00 CEST
- EGU EDI Colouring Book

- 4 artists (not!) in residence
- #EGUart room in platform
- #ActualLivingScientist (EDI initiative)
- Colouring book (EDI initiative)
- Imaggeo photo competition
- Kids Art



#vEGU21 Networking

- Scheduled networking events (Division, ECS, etc.), including on Gather.town
- Pop-up networking events
- EGU committee meet & greets
- Viennese settings (café, art exhibits, cooking)
- Quiet room (Spotify playlist)
- vEGU21 platform built-in networking capabilities (networker, handshake)



#vEGU21 outreach activities

- **EGU Public Lecture:** Günter Blöschl, Vienna University of Technology and previous EGU President, 21 Apr 18:00 CEST; link on EGU and vEGU21 websites. The lecture is hosted and organised by the Austrian Academy of Sciences.
- **EGU Mentoring:** 130 mentees successfully paired with 83 mentors.
- **Croome & Krafft award presentations** 20 Apr 18:00 CEST
- **Teaching/scientist pairing scheme** pilot project

#vEGU21 Media activities

- 6 press conferences
- New: media highlights page
- New: 5 press releases
- New: 5 media tip sheets
- Every PG represented in these materials!

Media at vEGU21
Worldwide | 19–30 April 2021

Media highlights

[Home](#) / [vEGU21 Press Centre](#) / Media highlights

Site search



The evolution of feathers

Birds are covered in feathers, but they are not the only animal to sport a colorful coat. Dinosaurs once did too, according to recent scientific findings. Researchers have uncovered fossils that show feathers existed 100 million years ago and were likely on all dinosaur groups.

[Michael Benton](#), paleontologist at the University of Bristol, UK, [presents](#) research on **Tuesday, 20 April at 15:05 CEST** covering the evolution of feathers, including how paleontologists are detecting colours and patterns of dinosaur feathers. He will also discuss new frontiers of research in paleobiology.



Dinosaurs that are 100 million years old show evidence of feathers. Scientists have discovered that *Sinosauropteryx* had ginger and white rings of feathers down its tail. Image credit: Sam / Olai Ose / Skjaervoy, CC 2.0, Flickr.

Lessons learned when an earthquake struck during the pandemic



The deadliest earthquake of 2020 occurred amid the global COVID-19 pandemic. When a magnitude-6.9 quake struck the eastern Aegean Sea in October, 119 people died in Turkey and Greece, predominantly from buildings collapsing. It was the scene emergency responders and natural hazards scientists had feared: a major quake occurring during the pandemic.

Normal actions immediately following an earthquake — like search and rescue, first-aid treatment, and setting up emergency shelters — were riskier and more challenging because of COVID. For example, responders needed proper personal protective equipment, especially facemasks, and the affected

PS related Medals and Awards

PS 2020 David Bates Medal Lecture & 2021 Division Outstanding ECS Award Lecture
>>MAL18 **Wed**, 21 Apr, 15:00–17:00 (CEST)

EGU 2020 Jean Dominique Cassini Medal & PS Arne Richter Award for Outstanding ECS Lectures
>>MAL1c **Thu**, 22 Apr, 11:00–15:00 (CEST)

* Attendees join through the MAL programme or MAL auditorium in the VCC
see a button "Enter live session" 15 minutes early.



JEAN DOMINIQUE CASSINI MEDAL & HONORARY MEMBERSHIP 2020

Pascale Ehrenfreund

[Home](#) / [Awards & medals](#) / [Jean Dominique Cassini Medal & Honorary Membership](#) / 2020 / Pascale Ehrenfreund

The 2020 Jean Dominique Cassini Medal & Honorary Membership is awarded to Pascale Ehrenfreund for her leadership in international space exploration and breadth of science leading her to co-found the field of astrobiology.

Pascale Ehrenfreund is a talented, original and brilliant scientist whose very broad background in biology, astrochemistry and astrophysics, coupled with the ability to rapidly understand the wider, more far-reaching aspects of science, has enabled her to create new research fields as well as reach the highest levels of global space policy and leadership.

Ehrenfreund is among the founders of the field of astrobiology. Trained in biology and genetics, she completed her PhD in astrophysics at the University Paris VII and University of Vienna in 1990. The following year she obtained a habilitation in astrochemistry, with a collection of works entitled “cosmic dust”. Ehrenfreund has taught astrobiology as professor at the universities of Amsterdam and Leiden, was a distinguished visiting scientist at JPL, and a research professor at George Washington University. She has published more than 200 publications, which have been cited more than 13,000 times. She leads a research group conducting world-class research on organic molecules in the interstellar medium and in small bodies of our solar system.

Ehrenfreund has served in a number of space projects, including science team membership on Smart- 1, Exomars and Rosetta; interface scientist position for the Aerosol Collector Pyrolyser onboard Cassini-Huygens (enabling Austrian contribution, her scientific work on laboratory studies of Titan tholins was co-authored by C. Sagan); principal investigator for BIOPAN V and ISS EXPOSE-R experiments; and NASA project scientist position for the O/OREOS satellite. She was also among the initial proposers of the ExoMars rover mission and played a key role in the selection of its initial payload.



Pascale Ehrenfreund

MAL1c Thu, 22 Apr, 11:00–15:00 (CEST)

International leadership, serving as President of the Austrian Science Foundation since 2013 and as Chair of German Aerospace Center DLR since 2015, where she is responsible for 8,000 staff members. The Cassini Medal is awarded to “scientists who have achieved exceptional international standing in planetary and space sciences ... for their merit and their scientific achievements”. Pascale Ehrenfreund is the epitome of these criteria. Throughout her career, she has always demonstrated and supported planetary and space sciences; few other scientists have contributed so profoundly to the development of the field of astrobiology.



ARNE RICHTER AWARDS FOR OUTSTANDING EARLY CAREER SCIENTISTS 2020

Beatriz Sánchez-Cano

[Home](#) / [Awards & medals](#) / [Arne Richter Awards for Outstanding Early Career Scientists](#) / 2020 / Beatriz Sánchez-Cano

PS Planetary and Solar System Sciences

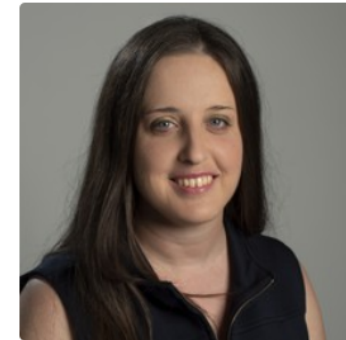
The 2020 Arne Richter Award for Outstanding Early Career Scientists is awarded to Beatriz Sánchez-Cano for her outstanding research on the complex variability of Mars' ionosphere through multi-instrument and multi-mission data processing, analysis and interpretation, as well as numerical modelling.

Beatriz Sánchez-Cano's research focuses on the ionosphere of Mars, for which she revealed a complex variability based on multi-instrument and multi-mission data processing, analysis and interpretation, as well as numerical modelling. Sánchez-Cano has led and published a number of very original studies that have contributed significantly to our understanding of ionospheric physics, such as the use of the Martian total electron content as a tracer for atmospheric cycles, the solar cycle effect on Mars' ionosphere, and the response of Mars' atmosphere to solar wind events.

Sánchez-Cano has been highly productive, having published 9 peer-reviewed articles and 1 peer-reviewed book chapter as first author. Her citation metrics are excellent for her stage of career and in her research field. Furthermore, her publications are commonly featured as an 'Editor's Highlight' and are among the most downloaded papers for JGR: Space Physics during the past two years.

Sánchez-Cano has acquired a broad and extensive knowledge of atmospheric and plasma physics and approaches topics with an interdisciplinary view. She has brilliant ideas and is very open and eager to learn new topics. It is worth highlighting that Sánchez-Cano maintains a number of fruitful collaborations

she is involved in current instrument and mission proposals, including the SEP ion proposal.



Beatriz Sánchez-Cano

MAL1c Thu, 22 Apr, 11:00–15:00 (CEST)

Sánchez-Cano has demonstrated that she has developed the necessary autonomy to successfully lead high-quality research activities and actively contribute to the community. Her scientific work is complemented by outreach activities, including a major contribution to the ESA Guggenheim Chasmata Project featuring Mars Express ionospheric "music". Sánchez-Cano is amongst the best young talented scientists in her field and therefore a well-qualified and worthy winner of

DAVID BATES MEDAL 2020

Agustín Sánchez-Lavega

[Home](#) / [Awards & medals](#) / [David Bates Medal](#) / 2020 / Agustín Sánchez-Lavega

The 2020 David Bates Medal is awarded to Agustín Sánchez-Lavega for his exceptional contributions to solar system exploration and planetary atmospheric dynamics, as well as promoting young researchers, advancing interactions with amateur astronomers, and publicising planetary science.

EGU is honored to recognise the numerous and outstanding contributions of Augustin Sanchez-Lavega to planetary science by awarding him the 2020 David Bates Medal. Sanchez-Lavega has had a long and illustrious career as a researcher, scholar, educator and mentor. In addition to his professional activities, Sanchez-Lavega has worked hard to share the excitement of planetary science with the general public and to facilitate collaboration between professional and amateur astronomers.

Sanchez-Lavega is an internationally renowned expert in the field of dynamics of planetary atmospheres. He has published extensively on Venus, outer planets, Mars and Titan, with more than 200 journal articles, 11 book chapters, hundreds of abstracts at scientific conferences, and a successful book titled “An Introduction to Planetary Atmospheres” that is used at many universities. His publications have had a big impact on the field, which is evident from his publication and citation record.

Sanchez-Lavega has investigated the general circulation and vertical structure of Venus, Jupiter and Saturn. He led the studies of Saturn’s convective storms, being the first to report the existence of a south polar vortex and to propose that the polar hexagon wave has its roots deep in Saturn’s atmosphere. Sanchez-Lavega also made noteworthy contributions to the understanding of the structure of Jupiter’s Great Red Spot and the discovery of circumpolar Rossby waves at the North and South Poles of Jupiter. He has made valuable contributions to the understanding of Venus’ superrotation and its polar vortex.

MAL18 Wed, 21 Apr, 15:00–17:00 (CEST) /estigator on a number of past, current and in-development ESA planetary missions, including Venus Express/VIRTIS, Mars Express/VMC (Science Lead), ExoMars 2020/DS, JUICE/MAGIS, and NASA’s Mars 2020/MEDA investigation. He has served on a number of advisory boards such as ESA’s Solar System Working Group.

Sanchez-Lavega is also a respected educator. He has had a long association with Universidad del País Vasco in Bilbao, Spain, where he started first as a PhD



Agustín Sánchez-Lavega

PS Planetary and Solar System Sciences

The 2021 Division Outstanding Early Career Scientist Award is awarded to William Dunn for his outstanding contributions on understanding the morphology and driving mechanisms of Jupiter's X-ray aurora, strong leadership in X-ray observing programs, and his generous service to outreach.

William Dunn has made remarkable contributions to the planetary science field, specifically by studying the planetary X-ray emissions and their relation to the solar wind and space weather as well as the causes of Jupiter's quasi-periodic pulsations and auroral flares. Since his PhD at University College London, Dunn has demonstrated a clear scientific strategy for exceptional scientific outputs, and he obtained multiple observing campaigns with the X-ray space telescopes for Jupiter X-ray studies by proposing highly competitive science cases. These campaigns, put together, amount to more time than in the previous 17 years of Jupiter observations combined. Using the data planned by himself and the team he led, William Dunn derived compelling results that have significantly shifted the understanding of Jupiter's X-ray auroral process, including the discovery published in Nature Astronomy of the independent behavior of X-ray emissions at both hemispheres of Jupiter.



William Dunn

MAL18 Wed, 21 Apr, 15:00–17:00 (CEST)

OUTSTANDING STUDENT POSTER AND PICO (OSPP) AWARDS 2019

Anna Mittelholz

[Home](#) / [Awards & medals](#) / [Outstanding Student Poster and PICO \(OSPP\) Awards](#) / [2019](#) / Anna Mittelholz

PS Planetary and Solar System Sciences

The 2019 Outstanding Student Poster and PICO (OSPP) Award is awarded to Anna Mittelholz for the poster/PICO entitled:

First results from the InSight FluxGate Magnetometer: Constraints on Mars' crustal magnetic field at the landing site (Mittelholz, A.; Johnson, C. L.; Langlais, B.; Lognonne, P.; Pike, W. T.; Joy, S. P.; Russell, C. T.; Yu, Y.; Ansan, V.; Grott, M.; Krause, C.; Spohn, T.; Widmer-Schmidrig, R.; Smrekar, S. E.; Banerdt, W. B.)

Anna Mittelholz is a PhD student at the University of British Columbia in Canada. Her research aims to understand the static crustal and time varying external magnetic field of Mars, and their interactions.

For the 2019 EGU general assembly, Anna presented a poster displaying first results of the magnetometer on the InSight Mars lander. This mission has been operating since November 2018 and its magnetometer represents the first surface observatory giving us primary indications on Mars' strong crustal magnetic field, and time variations as observed from the ground.



Anna Mittelholz

In 2020, no OSPP contest was organized due to the last-minute change to a virtual meeting.

CONGRATULATIONS!

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* Attendees join through the MAL programme or MAL auditorium in the VCC
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EGU awards & medals

- EGU features an extensive awards and medals programme on all career stages
- Nominations are exclusively by EGU members* while candidates do not need to be EGU members. (*An exception is one award to promote excellence in journalism allowing nominations from non-members and self nominations)
- Individual award and medal committees are then evaluating the nominations selecting the most deserving candidate based on scientific achievements**. (**plus one medals each for journalism, outreach and service to the union)



EGU awards & medals

How to nominate

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

When: **from now to June 15, 2021**

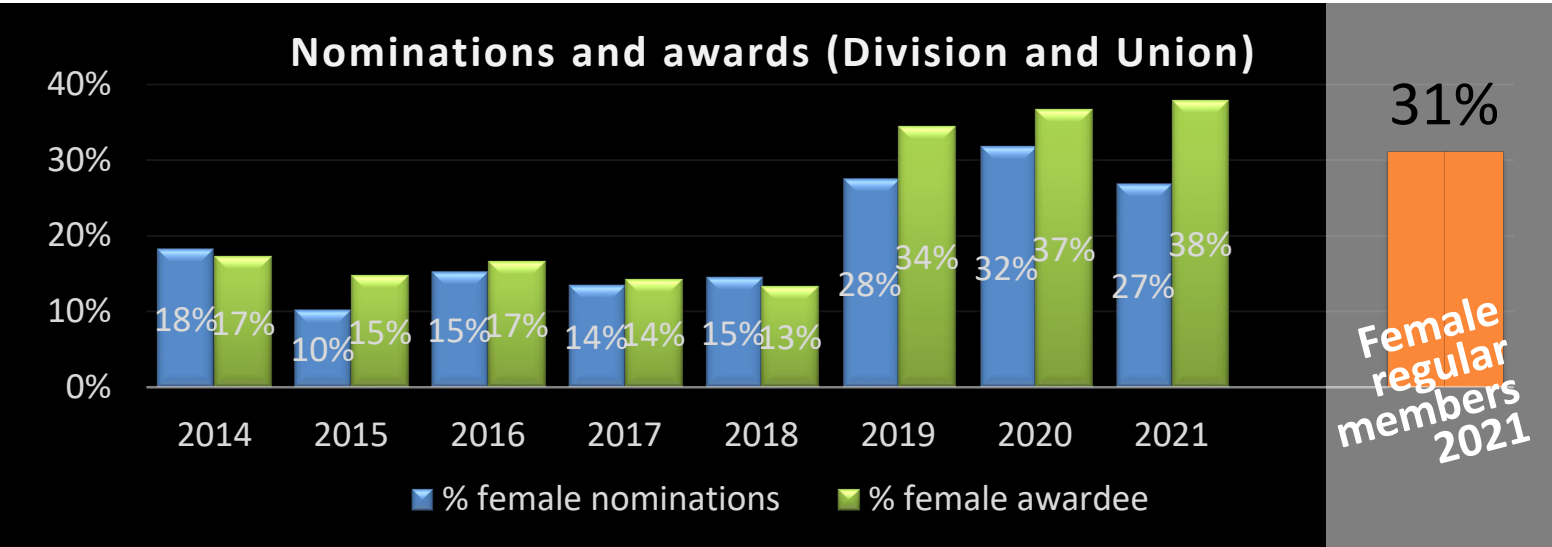
What is required:

	Division and Union medals	Outstanding Early Career Scientists Awards *
Nomination letter	1 page	½ page
Curriculum Vitae	2 pages	1 page
Selected bibliography	2 pages	½ page
Supporting letters	3-5 (maximum 1 page each)	-

* <https://www.egu.eu/awards-medals/ecs-definition/>



We encourage **all** members to contribute to the awards program by nominating suitable candidates
 When nominating please think about people who may have been overlooked in your discipline



Over the past years the fraction of awards and medals obtained by women has increased. This is due to the increase in nominations.

Equality of opportunities in geosciences: The EGU Awards Committee experience

Session EOS5.1, abstract EGU21-651

<https://meetingorganizer.copernicus.org/EGU21/EGU21-651.html>

Medal Committee Approval



David Bates Medal (PS)/ Runcorn-Florensky Medal (PS)

Sushil Atreya (Chair)

Jessica Flahaut (new in 2021)

Bruno Bézard

Tim Van Holst

Agustín Sánchez-Lavega (new in 2020)

vOSPP contest @ EGU21

virtual Outstanding Student and PhD candidate Presentation contest

- PS has **32** participants this year
- Number of votes needed to be competitive : best 5 votes or more per contestant
- This year all participants (if not conflicted) are invited to vote:

11:08–11:10 | EGU21-10235 ★ | ECS | vOSPP 

[Modelling Mineral Snowflakes in the Atmospheres of Gas-Giant Exoplanets](#)

Dominic Samra, Christiane Helling, Michiel Min, and Til Birnstiel

11:10–11:12 | EGU21-936 ★ | ECS

[Modelling the influence of high-energy radiation on the atmospheric composition of the hot](#)

How to cite: Szabo, P. S., Biber, H., Jäggi, N., Wappl, M., Stadlmayr, R., Primetzhofer, D., Nenning, A., Mutzke, A., Fleig, J., Mezger, K., Lammer, H., Galli, A., Wurz, P., and Aumayr, F.: Quantifying Space Weathering of Phobos by Martian Planetary Oxygen Ions, EGU General Assembly 2021, Online, 19–30 Apr 2021, EGU21-1813, <https://doi.org/10.5194/egusphere-egu21-1813>, 2021.

Post a comment

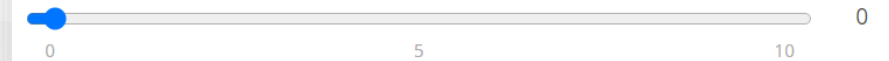
vOSPP judging



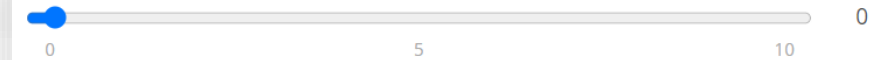
vOSPP judging on display materials

Please rate the display materials with regard to the 3 given criteria. Hereby, 0 full vote at any time before 30 April 2021.

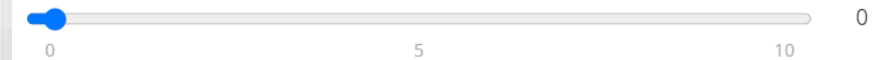
Relevance of the study



Scientific accuracy



Clarity of presentation



Call for NEW Medal Name

Runcorn-Florensky Medal

David Bates Medal

Originally biannually each, now only one medal therefore we are searching for a **new name**:

Representative for the Planetary and Solar System Science Division

This medal was established by the Planetary and Solar System Sciences Division in recognition of the scientific *and editorial* achievements **XX YY**. It is awarded to scientists for their exceptional contributions

- a)** to planetology, defined in its widest sense.
- b)** to planetary and solar system sciences.

Call for NEW Medal Name

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David Bates Medal

Originally biannually each, now only one medal
searching for a **new name**:

Representative for the Planetary and Solar System Sciences Division

This medal is awarded by the Planetary and Solar System Sciences Division for outstanding achievements XX YY. It is awarded for contributions in its widest sense. solar system sciences.

**We are still looking for suggestions
(like last year) by September 1, 2021
ps@egu.eu or awards.medals@egu.eu**

The Angioletta Coradini Conference Series on Solar System and Planetary Processes.

Description of Conference series:

The Angioletta Coradini Conference Series of the European Geosciences Union promotes novel and innovative research related to all aspects of space research, in particular chemical and physical processes and their interactions with the Sun, other host stars, the heliosphere and astrospheres with the planetary magnetospheres, atmospheres and climate.

Proposals for the Angioletta Coradini Conference Series are welcome at any time and should be submitted to the Topical Events Committee.

Divisions involved:

Solar-Terrestrial Sciences (ST), Planetary Sciences (PS), Geodesy (G), Atmospheric Sciences (AS), Climate: Past, Present, Future (CL), Earth and Space Science Informatics (ESSI), Earth Magnetism & Rock Physics (EMRP).

Previous Structure

President	Stephanie C. Werner
Deputy President	Özgür Karatekin
Programme Group Chair	Stephanie C. Werner
Science Officers	Olivier Mousis Giant Planets Systems
	Ingrid Mann Small Bodies (dwarf planets, asteroids, comets) to Dust
	Lee Grenfell Space Weather, Climate, Habitability, and Life in (Exo-) Planetary Context
	Gregor Golabek Terrestrial Planets Systems
	Jessica Flahaut Terrestrial Planets Systems

A BIG THANK YOU !

**Thank you for the last four years,
which you trusted me as the PS division president**

Welcome to Steve!



Meetings | Publications | Outreach |
www.eGU.eu

President

Stephen J. Mojzsis

Deputy President

Stephanie C. Werner

Programme Group Chair

Stephen J. Mojzsis

Science Officers

Ingrid Mann

Small Bodies (dwarf planets, asteroids, comets) to Dust

Patricia Clay

Meteorites, Planetary Geochemistry

Tristan Guillot

Giant Planets, Outer Solar System

Gregor Golabek

Terrestrial Planets Systems

Jessica Flahaut

Terrestrial Planets Systems

Daniel Kitzmann

(Exo)planet Atmospheres

TBN

Astrobiology

David Bates Medal Chair

Sushil Atreya

Runcorn-Florensky Medal Chair

Sushil Atreya

OSPP Coordinator

Lena Noack

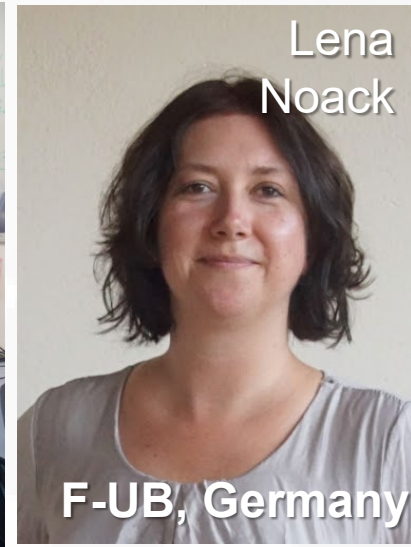
ECS Representative

Joshua Dreyer

Webmaster

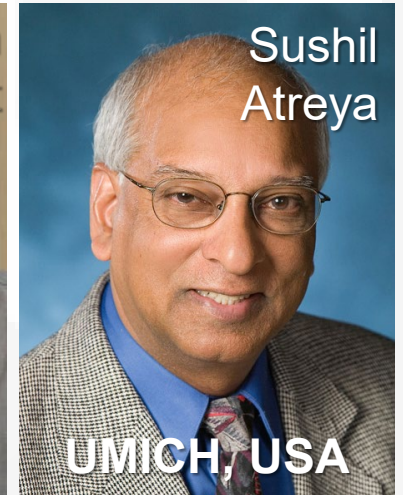
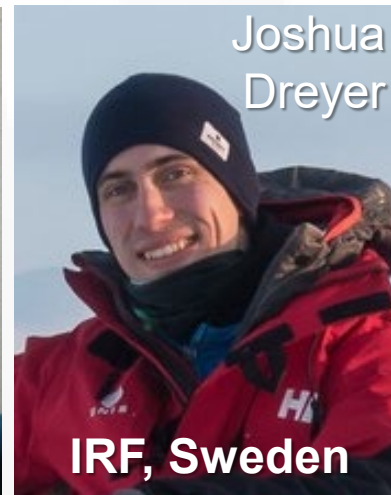
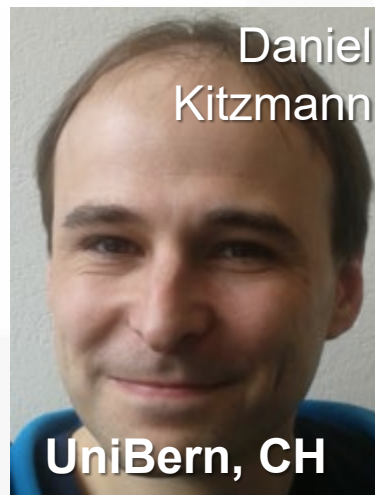
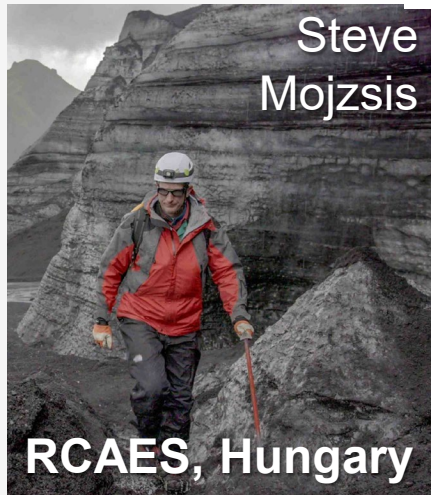
Joshua Dreyer

PS officers



TBN

Seeking
Nominations
For an
Astrobiologist!



Partner journal for PS

 OPEN ACCESS  ARTICLE LEVEL METRICS  MODERATE ARTICLE PROCESSING CHARGES

Editors-in-chief: Ioannis A. Daglis, Christoph Jacobi & Ingrid Mann

Editorial Board

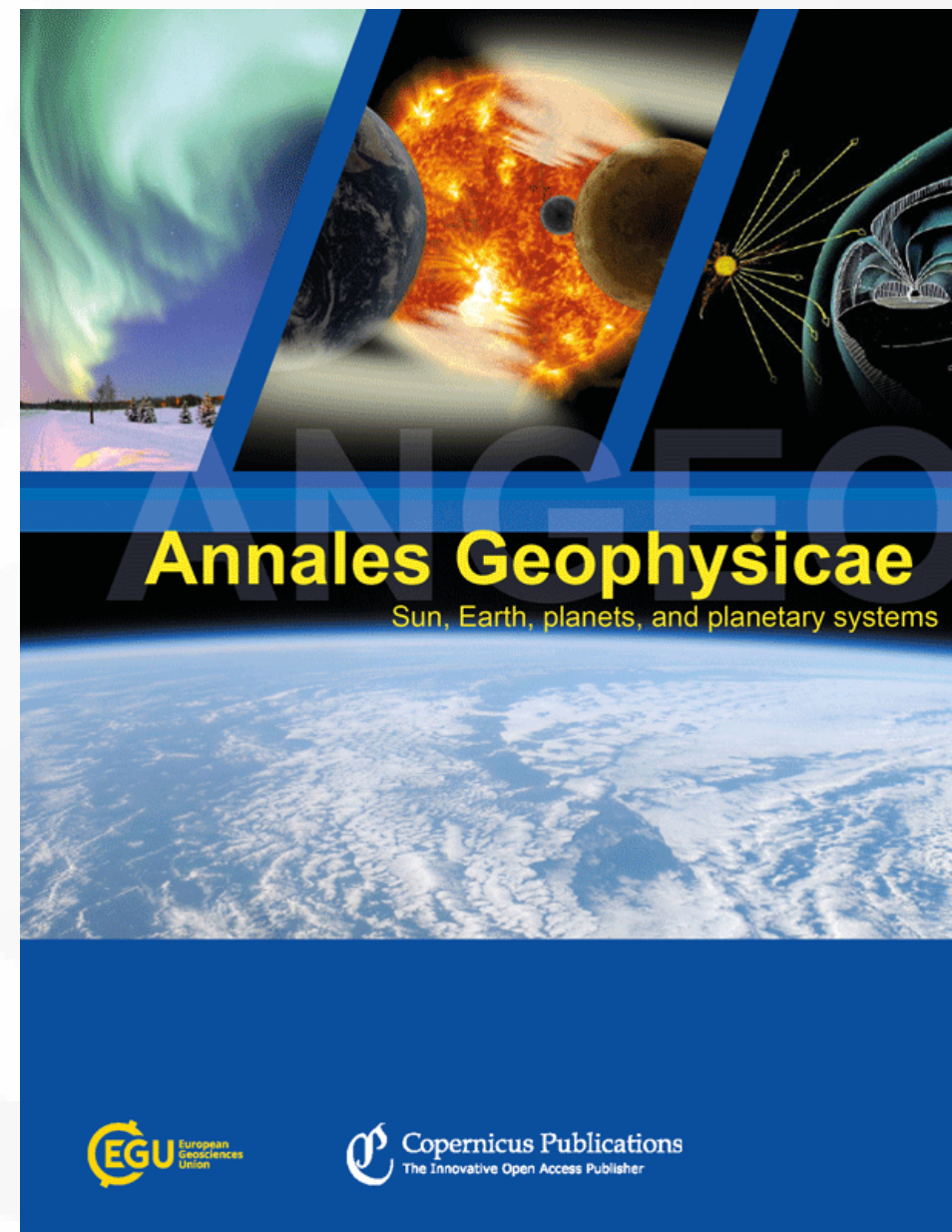
Discussion on the perspective of Special Issues

The solicitation of Special Issues (Sis) is strongly encouraged as a means to increase paper submissions. SIs may be organized in connection to workshops, conferences or EGU Assembly sessions. Furthermore, AnGeo topical editors may team up with “external” colleagues who would be interested in acting as guest editors, and jointly propose and organize SIs focusing on important current topics.

AnGeo is considering special conditions for Special Issues to motivate participation.

Recommendations include:

- o Reduced APCs
- o Certain percentage of free-of-charge papers
- o Fast-track processing



Conversation

Why EGU?

The future of EGU and PS

New directions to consider in Planetary and Solar System Sciences

-topical

meteoritics
missions
experiments
field studies
Exoplanets

BATES MEDAL

PS Networking Event

PS Programme for next week

-organizational

Synergistic partnerships with ST, GI, GMVP, GM, SM and GD (for example)
Identity, Community and Brand

Open Forum

ECS update

Joshua Dreyer

Meetings | Publications | Outreach | www.egu.eu

Early-Career Scientist Events at vEGU21

- 56 Short courses
 - 34 Short courses ECS as head-convener
- 21 Networking event led by and aimed at ECS
- 3 Great Debates led by ECS
- Jobs and Career Center initiatives
 - Meet the exhibitors
 - Meet the Talents
 - Blog on CV writing
 - Online CV-sticker
- Outreach
 - Introducing ECS Reps via EGU Blog
 - Blogs and Social Media blurbs about ECS-events

PS Early Career Scientists

- » ECS representative:
Joshua Dreyer, Swedish Institute of Space Physics, Uppsala, Sweden
- » Plan for next year:
 - build a team of ECS to have a more constant interaction with community via Facebook and Twitter (which are managed by ECS, but are lacking a social media team)
 - start a PS blog
 - organize a short course at EGU22
- » Please get in touch if you would like to get involved!
ecs-ps@egu.eu

There was a problem with emails to this address getting flagged as spam, this should be fixed now. My apologies if I missed one of your emails, please consider resending it!



Join the new PS ECS team!

Contact: ecs-ps@egu.eu

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“vEGU21 is indeed the craziest challenge ever with soooo many new software, external platforms, new approaches”

So: Engage • Discover • Inspire

NET38 - PS-event for all division members
Wed, 21 Apr, 17:30–18:30 (CEST)

Next EGU General Assembly: 3-8 April 2022



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www.egu.eu