

ENERGY, RESOURCES AND THE ENVIRONMENT (ERE)

Division Meeting, 16.05.2022

Viktor J. Bruckman



Energy, Resources
& the Environment

Division



Meetings | Publications | Outreach | www.egu.eu

WELCOME from the ERE team!



Viktor J. Bruckman



Sonja Martens



Morgan Tranter



Chris Juhlin



Michael Kühn

EGU Membership as of 13.05.2022

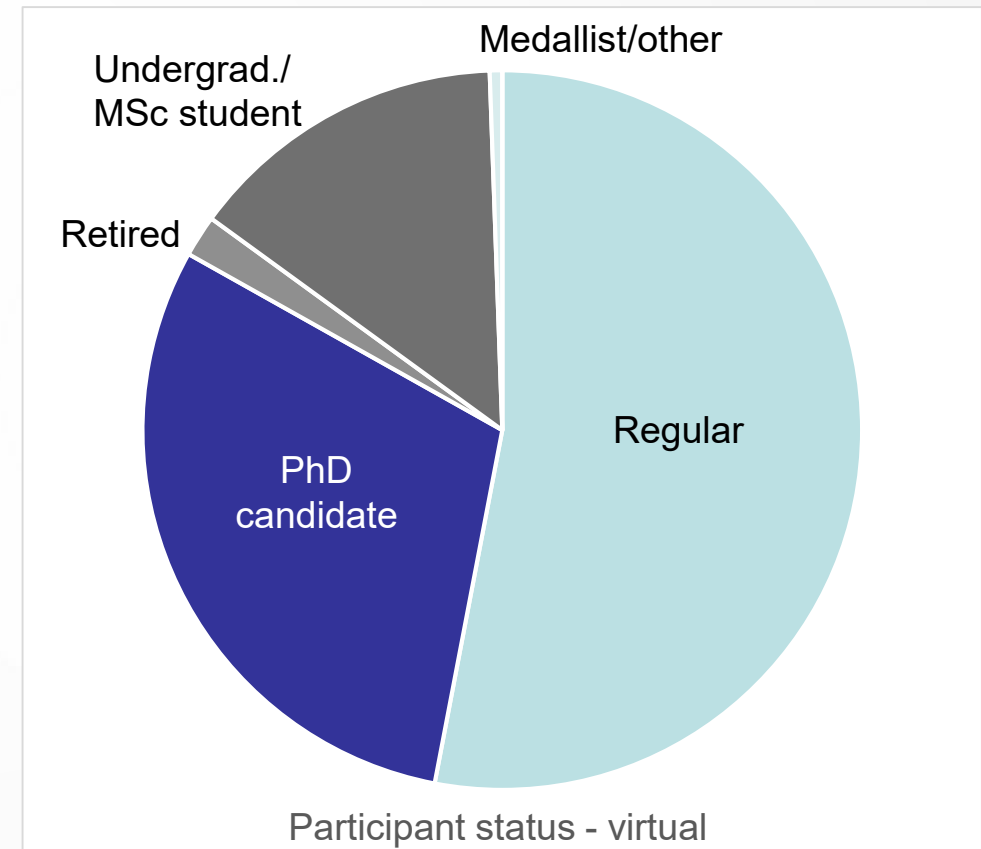
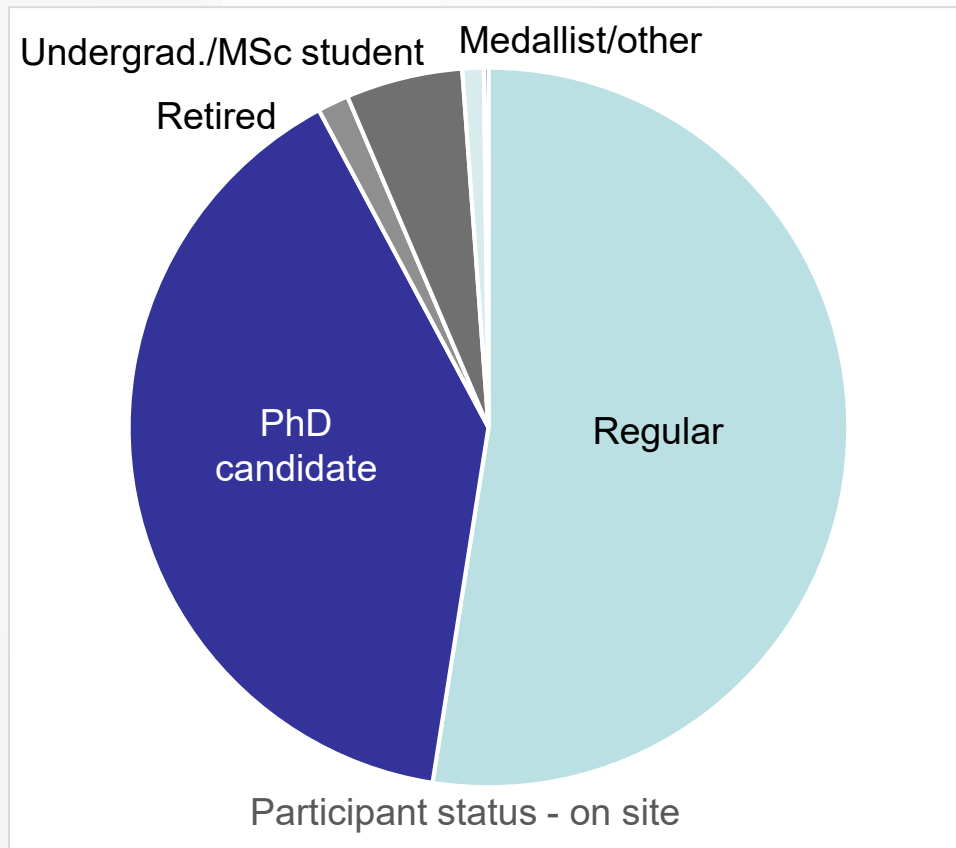
- 14,988 members (9.135 ECS)
- Gender balance: 60.1% male | 37.1% female | 0.3% non-binary | 2.5% prefer not to say
- ~ 1,300 members affiliated with ERE

EGU22: Sessions and abstracts, Schedule

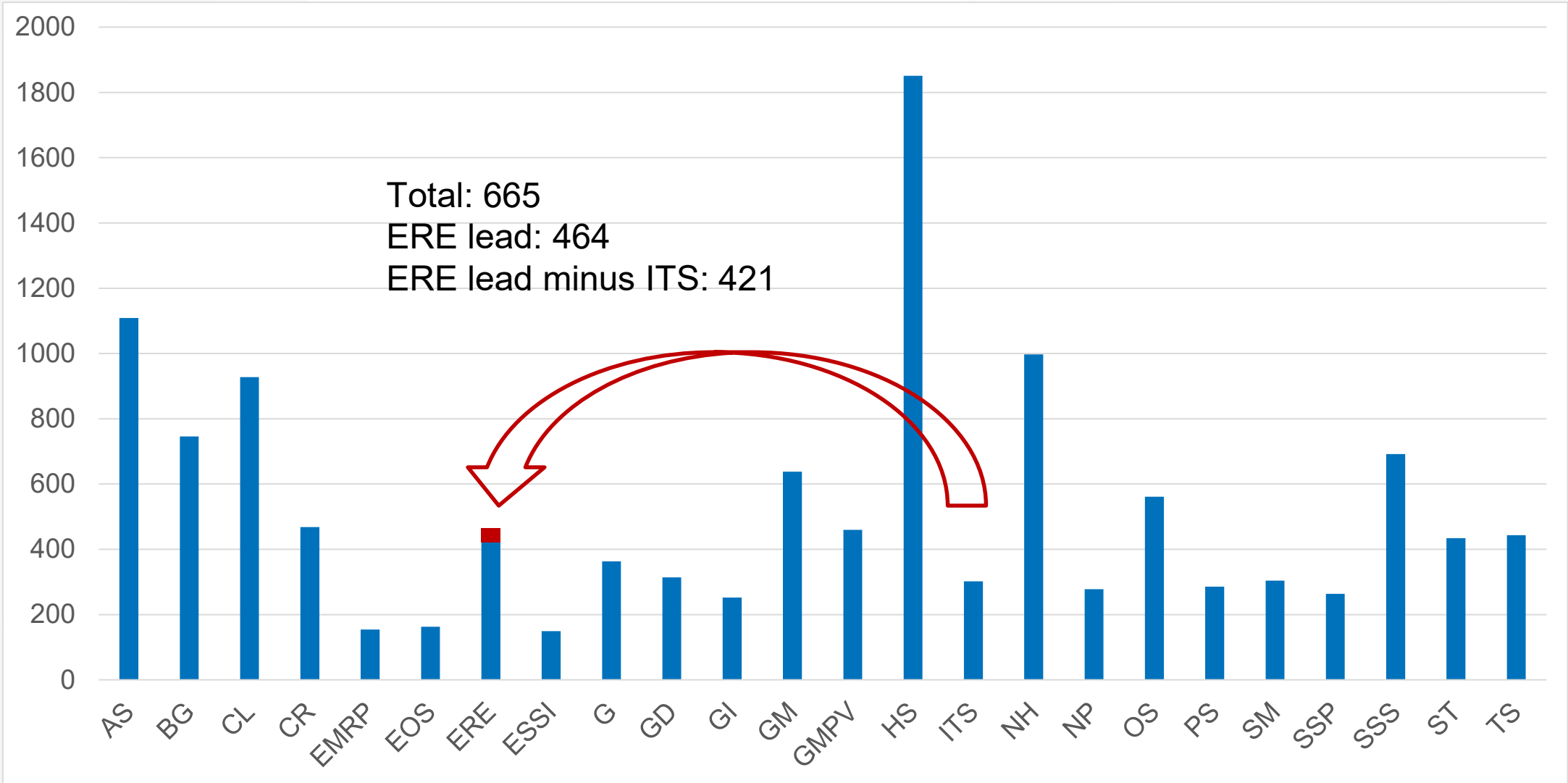
- 12,615 abstracts in programme | -9% relative to 2021
- 777 active sessions | 614 short-oral sessions | 54 Short Courses | 35 Medal and Award Lectures
- 65 Networking and Community Events (excluding pop-ups), Townhall Meetings, Side Events, Splinter Meetings
- EGU Plenary 23 May 12:00 CEST (Room E1) | Medal & Award celebration 25 May 17:30 CEST (Room E1)

EGU22: Registration numbers and breakdown

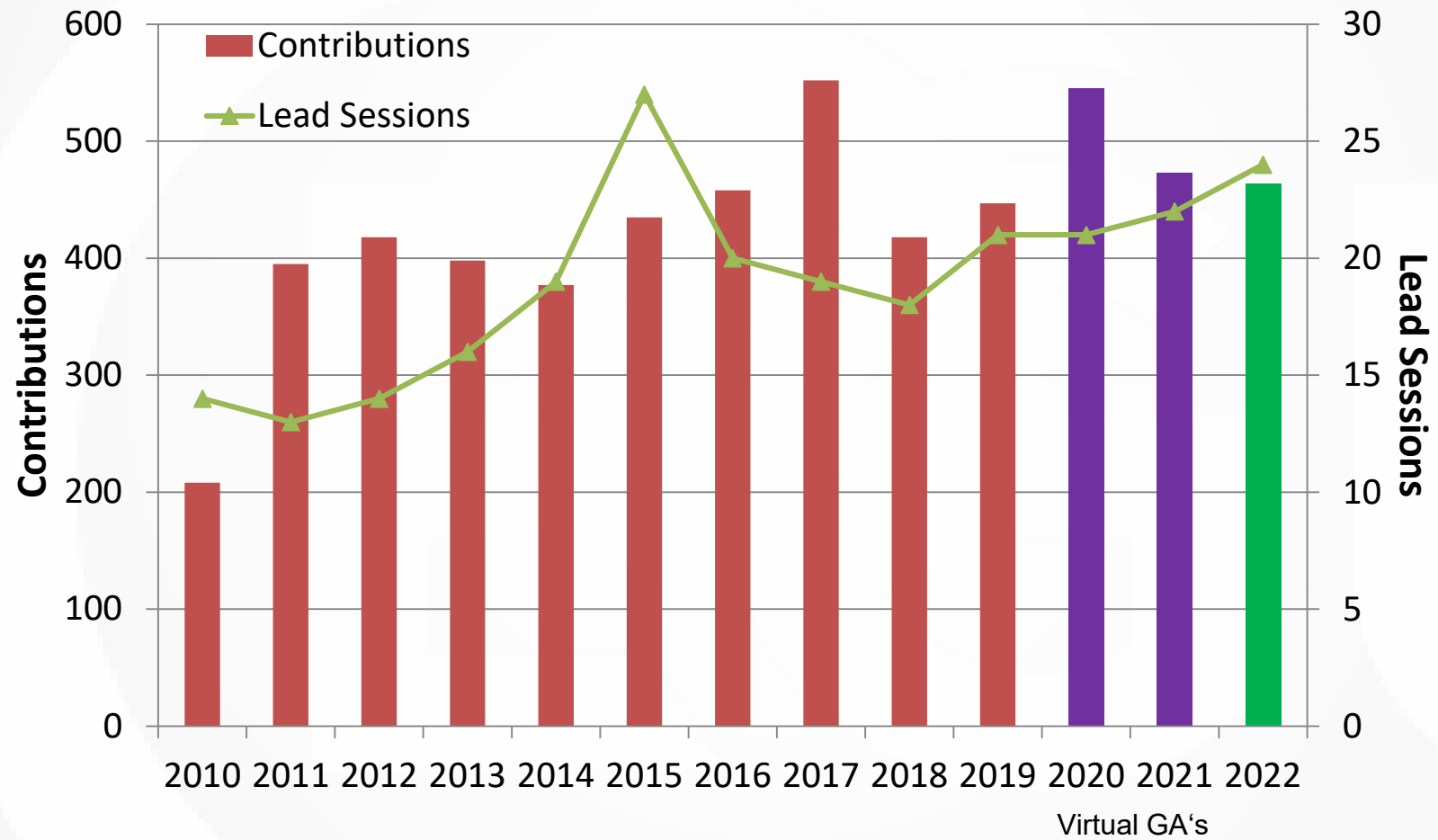
- 7280 on-site registrations
- On-site participants: 88 countries
- 4384 virtual registrations (12/05 21:00)
- Virtual participants: 107 countries



EGU22: Abstracts per Programme Group



ERE: Sessions and Abstracts



Energy, Resources and the Environment (ERE) division in a nutshell

- **ERE** builds on the interdisciplinary EGU geoscientists community, representing all disciplines of the earth, planetary and space sciences.
- ERE addresses **challenges** of the future:
- Provide adequate and reliable supplies of affordable **energy and geo-resources**
- obtained in **environmentally sustainable** ways,
- to ensure **economic prosperity, environmental quality** and **political stability** around the world.



ERE Division Officers (since 04/2021)

- President / PG Chair: **Viktor J. Bruckman**
- Deputy President: **Sonja Martens**
- Division Officers
 - **Chris Juhlin** (interdisciplinary)
 - **Michael Kühn** (publications)
- ECS Representative: **Morgan Tranter**



V.J. Bruckman



S. Martens



C. Juhlin



M. Kühn



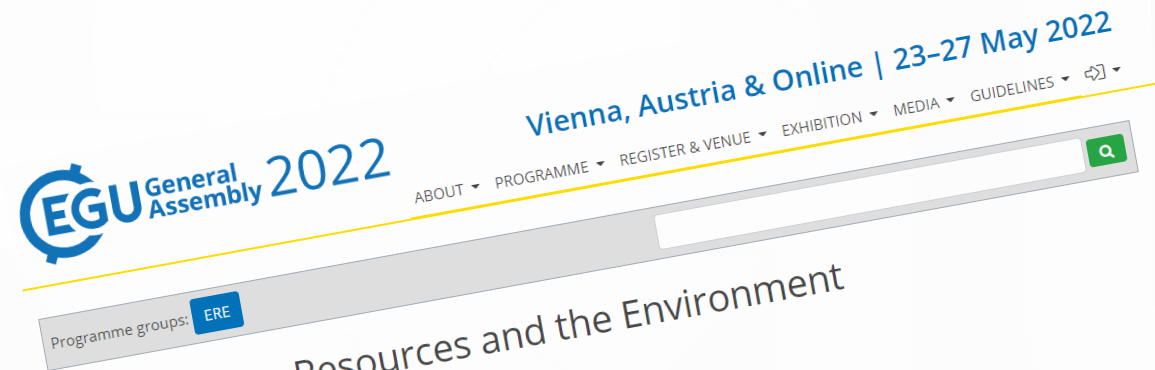
M. Tranter

ERE Division: How do we serve the community?

- **Organization** - Plan/run the ERE sessions for the General Assembly
- **Publications** - Offer annual ERE special issue(s)
- **Information** - Run the ERE mailing list, website and twitter
- **Networking** - Bring together ERE early career scientists, building bridges across disciplines



<http://www.egu.eu/ere>



ERE – Energy, Resources and the Environment

Programme group chair: Viktor J. Bruckman

- ERE1 – Integrated studies
- ERE2 – Renewable energy
- ERE3 – Geo-storage
- ERE4 – Raw materials
- ERE5 – Process coupling and monitoring related to geoenery applications

<https://meetingorganizer.copernicus.org/egu22/sessionprogramme/ERE/>



https://twitter.com/ERE_EGU

ERE Division Officers (from 05/2022)

- President / PG Chair: **Viktor J. Bruckman**
- Deputy President: **Sonja Martens**
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 - **Chris Juhlin** (inter- and transdisciplinary)
 - **Michael Kühn** (publications)
 - **Ana Teresa Maçãs Lima** (policy, **to be approved**)
 - **Neha Mehta** (outreach, **to be approved**)
 - **Giorgia Stasi** (ECS representative, **to be approved**)



V.J. Bruckman



S. Martens



C. Juhlin



M. Kühn



N. Mehta



A.T.M. Lima



G. Stasi

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S. Martens



C. Juhlin



M. Kühn



N. Mehta



A.T.M. Lima



G. Stasi

ERE Scientific Program 2022

- **ERE 1: Integrated Studies**
- **ERE 2: Renewable Energy**
- **ERE 3: Geo-Storage**
- **ERE 4: Raw Materials**
- **ERE 5: Process coupling and monitoring related to geoenery applications**

24 sessions (lead), **38** sessions (including co-organized & ITS)

<https://meetingorganizer.copernicus.org/egu22/sessionprogramme/ERE/>

ERE Scientific Program 2022

- **ERE 1: Integrated Studies**

- ERE 1.2: Changes in energy and material demand as drivers, outcomes and solutions of the climate and environmental crisis
- ERE 1.4: Climate change and cultural heritage: impact, vulnerability, adaptation
- ERE 1.6: Anthropogenic geomaterials for a sustainable future
- ERE 1.7: Impacts and co-benefits of the energy transition on hosting ecosystems – implications and prospects for Natural Capital and Ecosystem Services
- ERE 1.8: Geospatial analysis for sustainable development combined with Carbon emissions/removals estimates under Land use, land-use change and forestry (LULUCF) sector

ERE Scientific Program 2022

- **ERE 2: Renewable Energy**
 - ERE 2.1: Energy Meteorology
 - ERE 2.2: Spatial and temporal modelling of renewable energy systems
 - ERE 2.3: Geothermal resources in the framework of climate change and sustainability
 - ERE 2.4: Exploration, utilization and monitoring of conventional and unconventional geothermal resources
 - ERE 2.5: Shallow geothermal systems for heating and cooling: geoscience and engineering approaches

ERE Scientific Program 2022

- **ERE 3: Geo-Storage**

- ERE 3.1: Secure subsurface storage for future energy systems
- ERE 3.3: Towards a safe nuclear waste repository – assessment of barrier integrity, geoscientific, technological, societal and regulatory challenges and approaches
- ERE 3.5: Deep geological repositories - Geosciences in the site selection process

ERE Scientific Program 2022

- **ERE 4: Raw Materials**

- ERE 4.1: Heritage Stone Subcommittee: A Global Perspective
- ERE 4.2: Circular economy and resource recovery: from waste to raw material
- ERE 4.3: Environmentally sustainable transformation of waste from mining and quarrying activities for their valorisation
- ERE 4.4: Automation and robotics for raw material exploration and production in Europe

ERE Scientific Program 2022

- **ERE 5: Process coupling and monitoring related to geoenenergy applications**
 - ERE 5.1: Induced/triggered seismicity in geo-energy applications: monitoring, modeling, mitigation, and forecasting
 - ERE 5.2: Faults and fractures in geoenenergy applications 1: Monitoring, laboratory and field work results
 - ERE 5.3: Faults and fractures in geoenenergy applications 2: Numerical modelling and simulation
 - ERE 5.4: Underground Thermal Energy Storage, applications and associated processes in porous and fractured aquifers
 - ERE 5.5: Coupled thermo-hydro-mechanical-chemical (THMC) processes in geological media
 - ERE 5.6: Process quantification and modelling in subsurface utilisation
 - ERE 5.7: Reservoir stimulation and environmental impacts of geo-energy production

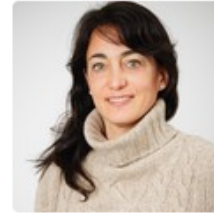
ERE Awards

Recent awardees

Giorgia Dalla Santa

📅 2021 🏆 Division Outstanding Early Career Scientist Award

The 2021 Division Outstanding Early Career Scientist Award is awarded to Giorgia Dalla Santa for her outstanding research on shallow geothermal systems for building conditioning.



[Read more](#)

Weilin Huang

📅 2021 🏆 Virtual Outstanding Student and PhD candidate Presentation (vOSPP) Award

The 2021 Virtual Outstanding Student and PhD candidate Presentation (vOSPP) Award is awarded to Weilin Huang for her implementation of mycorrhizal mechanisms in a soil carbon model, which improves predictions of long-term plant litter decomposition processes.



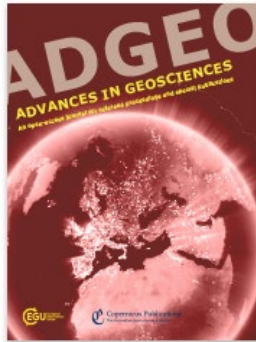
[Read more](#)

Nominate:

<https://www.egu.eu/user-area/nominations/form/37>

**Judging by all EGU members
(no conflict of interest)**

ERE: Publish in Advances in Geosciences



- **Join the ERE special issue 2022 in Advances in Geosciences (ADGEO).**
- If you submitted an abstract to an ERE session or a co-organized one for the GA 2022, you are welcome to contribute with a publication.
- Your manuscript needs to be directly linked to your EGU abstract (please add your abstract number when submitting).
- **Guidelines for preparations and templates** are available on the ADGEO website: <https://www.advances-in-geosciences.net/submission.html>
- Manuscripts need to be 4 pages long and should target around 10 pages.
- **Publication fees** depend on your home institution and are ca. 36 €/page.
- **Submissions** are possible from 1 May **until 15 July 2022.**
(https://www.advances-in-geosciences.net/about/scheduled_proceedings.html)
- Reviews are done by ERE officers, conveners and authors of the GA 2022.
- If you submit a manuscript we expect you to take part in the reviewing process. So we might ask you to do up to two reviews.
- **Questions?** Please contact: Michael Kühn (adgeo.ere.egu@gfz-potsdam.de)

Early Career Scientist activities at EGU22

Networking:

- **NET2** First-time attendee and mentee meet-up (onsite only), Mon, 23 May, 12:00–13:00 (CEST)
- **NET3** ECS networking reception (onsite only), Tue, 24 May, 19:00–20:30 (CEST)
- **NET4** ECS Forum (onsite only), Thu, 26 May, 17:00–18:30 (CEST)
- **Pop-up networking events** for icebreakers, socials and discussions (virtual and onsite)!

Short Courses (a selection):

- **SC1.1** How to navigate the EGU: tips and tricks, Mon, 23 May, 10:20–11:50 (CEST)
- **SC1.2** How to get involved with EGU, Tue, 24 May, 15:10–16:40 (CEST)
- **SC2.2** Careers inside and outside of academia: Panel Discussion, Tue, 24 May, 15:10–16:40 (CEST)
- **SC2.3** How to Find Funding, Tue, 24 May, 08:30–10:00 (CEST)
- **Jobs and Careers support** in the Virtual Conference Centre and EGU Booth
- Look for the **ECS** logo in the programme!

EGU22 outreach activities

- **EGU Public Lecture:** “Geothermie - Energie aus der Tiefe” (Geothermy - energy from the depths) by Maria-Theresia Apoloner | Zentralanst. f. Meteorologie und Geodynamik (ZAMG) - 24 May 18:00 at the Austrian Academy of Sciences and online.
- **EGU Mentoring:** 48 mentees for 20 mentors applications.
- **Croome award lecture** by Robin George Andrews 24 May 19:00 CEST Room E1
- **Teaching/scientist pairing scheme**

EGU Public Lecture 2022 – You're cordially invited!

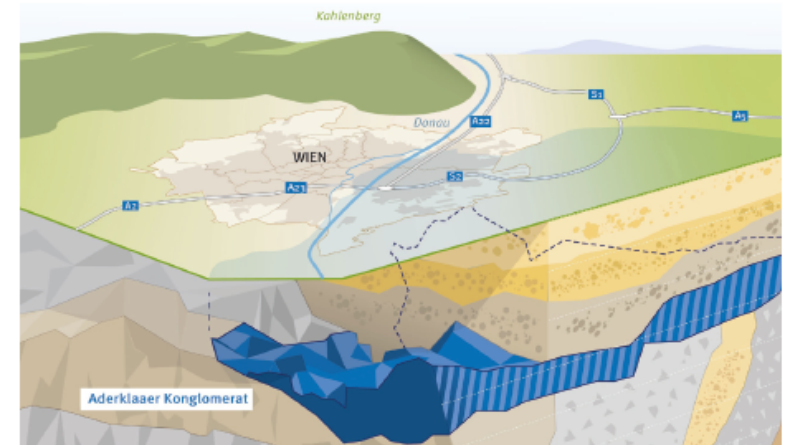
More information & registration:

<https://www.oeaw.ac.at/geok/detail/event/geothermie-energie-aus-der-tiefe>

ere@egu.eu

ÖAW
ÖSTERREICHISCHE
AKADEMIE DER
WISSENSCHAFTEN


DIENSTAG, 24. MAI 2022
BEGINN: 18.00 UHR
ÖAW, FESTSAAL
DR. IGNAZ SEIPEL-PLATZ 2
1010 WIEN
UND ONLINE



EINLADUNG ZUM ÖFFENTLICHEN VORTRAG
IM RAHMEN DER EGU-HAUPTVERSAMMLUNG 2022

GEO THERMIE

ENERGIE AUS DER TIEFE

- Distribution:
 - via email to participants and EGU members after EGU22
 - links on social media & blog
 - egu22.eu website
 - Survey live during EGU22 and until end of June
-  <https://www.egu22.eu/feedback>



ERE Transparency

- ALL Division Meeting slides available at:

➔ <http://www.egu.eu/ere/reports/>



The screenshot shows the EGU website page for ERE Division meeting reports. The page features the EGU logo and navigation menu at the top. The main content area has a dark background with the text "ERE ENERGY, RESOURCES AND THE ENVIRONMENT" and "Division meeting reports". Below this, there is a breadcrumb trail: "Home / ERE / About / Division meeting reports". A search bar is visible on the right. The main text describes the EGU Division on Energy, Resources and the Environment's annual meeting and provides a list of links to previous meeting slides and minutes.

EGU home | General Assembly 2022 | Divisions

EGU Division Energy, Resources & the Environment

ABOUT MEETINGS PUBLICATIONS AWARDS JOBS EGU.EU

ERE ENERGY, RESOURCES AND THE ENVIRONMENT

Division meeting reports

Home / ERE / About / Division meeting reports

The EGU Division on Energy, Resources and the Environment organises a division meeting each year at the EGU General Assembly. During this event, the division president reports on division activities (awards and medals, publications, current and next year General Assemblies), Union-wide news, presents the current division officers and runs the election of new ones. This page features the minutes and/or presentation slides of previous meetings.

- Slides of the ERE Division meeting 2021 (PDF document, 3.6 MB)
- Slides of the ERE Division meeting 2020 (PDF document, 1.1 MB)
- Slides of the ERE Division meeting 2019 (PDF document, 1.9 MB)
- Slides of the ERE Division meeting 2018 (PDF document, 1.5 MB)
- Slides of the ERE Division meeting 2017 (PDF document, 5.5 MB)
- Slides of the ERE Division meeting 2016 (PDF document, 2.6 MB)
- Slides of the ERE Division meeting 2015 (PDF document, 3.0 MB)
- Slides of the ERE Division meeting 2014 (PDF document, 11.9 MB)
- Slides of the ERE Division meeting 2013 (PDF document, 2.4 MB)
- Slides of the ERE Division business meeting 2012 (PDF document, 235.6 KB)
- Slides of the ERE Division business meeting 2011 (PDF document, 771.7 KB)
- Slides of the ERE Division business meeting 2010 (PDF document, 214.7 KB)
- Minutes of the ERE Division business meeting 2009 (PDF document, 54.2 KB)

THANK YOU!

ere@egu.eu

Meet the ERE President:

Tue, May 24, 12:15-1:15 p.m., „Meet the EGU“ Lounge

Energy, Resources
& the Environment

Division



- ***Why did you change the date of EGU22 from early April to late May?***

This decision was made in January at the beginning of the omicron wave. There was considerable anxiety within the community about attending an in-person event in these conditions. Moreover, Austria limited the maximum event size to 2000 seated people (and even less standing), with no indication of when that rule would be relaxed.

Under these conditions, when the ACV proposed an alternative date (due to the cancellation of another conference) we decided to do this, in order to maximise the chance of having an in-person component to EGU22

- ***Will the date of the General Assembly change again in future?***

This was the first time in the history of the EGU General Assembly that we have had to change the date and we sincerely hope it will be the last!

We are currently not announcing the date of the the 2023 General Assembly because we are still discussing with the ACV. Originally it was planned for early April but we hope to find again a date in May so as to be more resilient with regards to possible new Covid infection waves.

- ***Why are there no posters or PICOs this year?***

We originally had to provide a hygiene plan to the Austrian authorities. Including posters and PICOs in the programme appeared as a major risk in getting the plan approved.

Large numbers of non-seated people mixing in closed spaces are viewed as too much of a risk to our attendee's health, safety and well-being in the current pandemic situation.

- ***Austria relaxed the Covid regulations. Why are you maintaining the 2G and mask requirements?***

The Austrian authorities announced the relaxation of the regulations after our deadline for on-site registration. Due to the requirements of our conference hygiene plan, it was not possible to re-open the registration. We felt that participants had signed up for an in-person event under certain conditions and we did not want to modify this after participants had registered. The health and safety of all participants is our primary concern. In addition, we were advised to maintain a 2G conference given the unpredictable nature of regulation changes.