

GMPV Division Meeting

Marian Holness (GMPV President)

Thursday 7th May 2020



Meetings | Publications | Outreach | www.egu.eu

Welcome to Sharing Geosciences Online 2020

EGU is pioneering a new way of getting together to share our science, communicate our ideas and work together as a scientific community.

- Online? Yes! Because it is EGU's responsibility to help minimise the impact of COVID-19 on scientific research and collaboration
- This is a pilot experiment (we would like feedback!) [<https://egu2020.eu/feedback>](https://egu2020.eu/feedback)
- Free registration
- Our considerations:
 - Science submitted to the General Assembly 2020 can be presented and shared
 - All authors and conveners can participate, across different time zones
 - Sharing Geoscience Online is accessible (in terms of bandwidth, for those with hearing or visual difficulties)

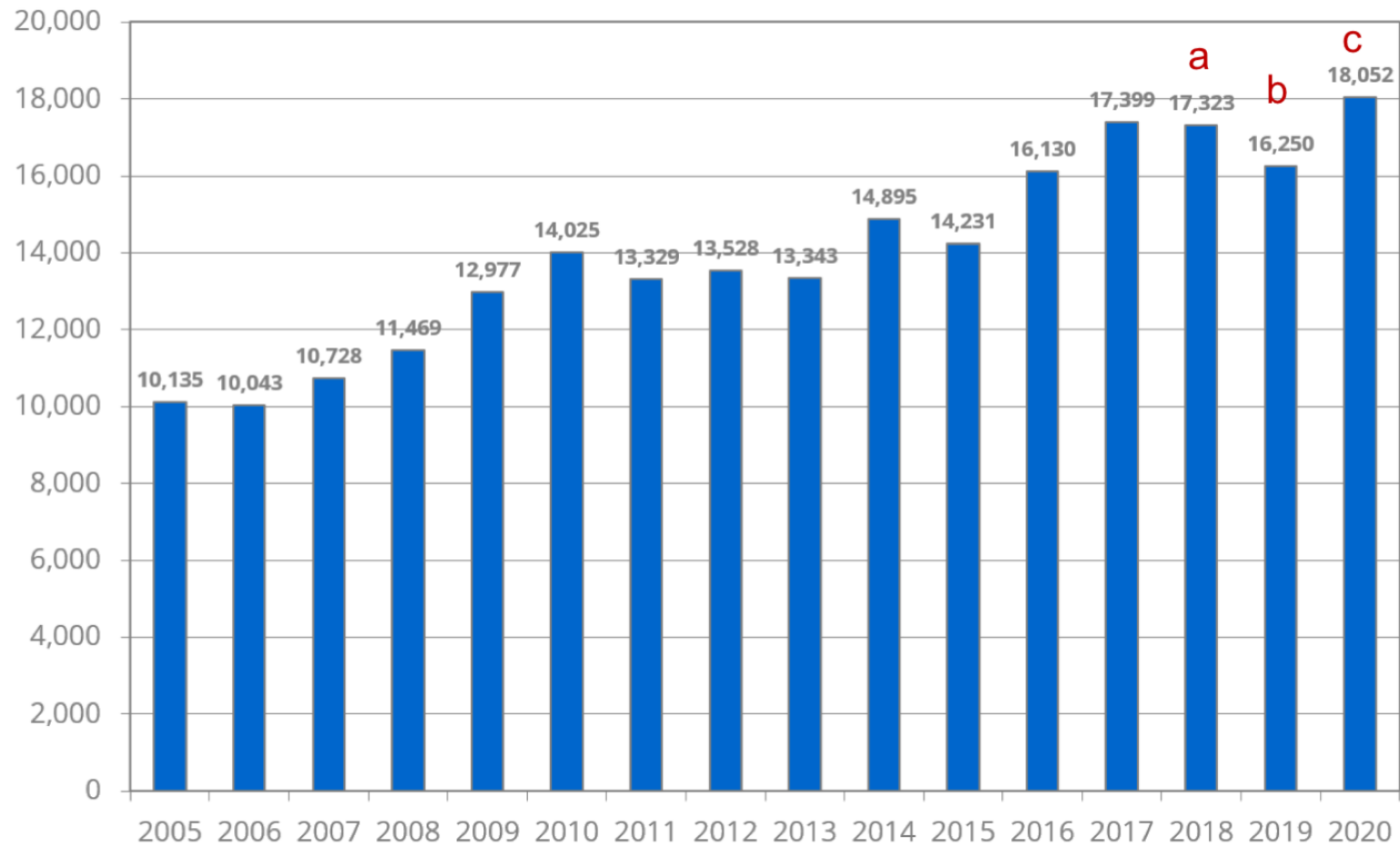
You will have had 3.5 days of this experience before the Division Meeting, and this is your opportunity to chat about how it has been so far.

It is also a chance to find out more about the activities of EGU and, more specifically, the GMPV Division.

The timeline of Sharing Geoscience Online: the birth of a new concept

- 16 March: Started developing the concept for online activities
- 19 March: Cancelled physical General Assembly
- 23 March: First Sharing Geoscience Online webpages created
- 31 March: All presentations turned to displays, rescheduled sessions to blocks of 30 displays
- 1 April: Opened for upload of presentation materials and commenting
- 1 April: First FAQ page live
- 6 April: Webinar created
- 8 April: SC plan
- 16 April: Opened for upload of session materials
- 16 April: Division Meetings scheduled
- 21 April: 'how-to-use-the chat' pages created

Abstracts in programme 2005 – 2020



- a) 2018: withdrawal of no-show abstracts
- b) 2019: one first-author abstract rule
- c) 2020: Physical GA cancelled 19 March; part of the GA brought online

GA2020 statistics

- 18,052 abstracts in programme | +11.1% relative to 2019
- 702 unique scientific sessions
- 440 out of 702 scientific sessions are co-organized (62.7%), of which 37 are ITS
- 19 GMPV-led sessions (with a further 8 for which we are co-organisers)
- 561 abstracts for GMPV-led sessions

Code of Conduct

- Participation in EGU2020: Sharing Geoscience Online implies agreement to EGU's Code of Conduct, <https://www.egu.eu/about/code-of-conduct/>
- The Code of Conduct is flagged when uploading materials, when commenting, when entering the chat
- Violations or concerns to be reported to conduct@egu.eu

The 2020 Robert Wilhelm Bunsen Medallist



This medal, established by the GMPV Division, is awarded for distinguished research in geochemistry, mineralogy, petrology and volcanology. The 2020 Robert Wilhelm Bunsen Medal is awarded to Holly J. Stein in recognition of her pioneering development of the rhenium-osmium geochronometer and remarkable array of applications of Re-Os geochemistry.

Holly Stein's research includes the development of ground-breaking new geochemical tools and their application to a wide array of problems, and she is currently one of the most influential scientists in the field of geochronology and geochemistry. Her research, which initially involved molybdenite, established protocols for reliable, accurate and reproducible geochronological analysis that are used worldwide to this day. Applications of these methods have changed our understanding of ore deposit genesis across many deposit types and also found innovative applications in metamorphic petrology and tectonics.

We plan to schedule Holly's medallist lecture, and the presentation of the medal, at GA2021

Our warmest congratulations, Holly!

The 2020 GMPV Division Outstanding Early Career Scientist Award



The 2020 GMPV Division Outstanding Early Career Scientist Award is awarded to Pilar Lecumberri-Sanchez for ground-breaking research in the field of hydrothermal processes in the geosciences.

Lecumberri-Sanchez has made transformative contributions to our understanding of the key role played by salt in hydrothermal systems created by cooling bodies of magma trapped in the Earth's crust. By elegantly linking thermodynamics, numerical simulations and independent estimates of porphyry ore formation depths, Lecumberri-Sanchez has shown how brines can strongly influence the creation of ore deposits in these hydrothermal systems and control how fluids move through the crust by the localised deposition of salt.

Her innovative and imaginative contributions to the subject have been game-changers in the way we view fluid-rock interactions, and have given her a well-deserved international reputation for rigorous and impactful studies that truly advance our understanding.

We look forward to hearing Pilar's talk at the 2021 GA!

Outstanding Student Poster and PICO (OSPP) awards

These awards are intended to encourage the efforts of our younger colleagues in presenting their work in these formats. The awards are for undergraduate and postgraduate students who are first author and presenting at the conference. They can only be considered for the award if they express interest in participating in the contest at abstract submission: please encourage all your students to do this when submitting their abstracts for the 2021 GA!

The Division Meeting is the time when we present the awards for the previous GA. This year we cannot meet in person, but the GMPV Division awardees for 2019 are:



Mahyra Tedeschi

Petrochronology of UHT garnet-free granulites: linking zircon geochemistry to metamorphic reactions
(Tedeschi, Peters, Moraes & Pedrosa-Soares)



Tom Winder

The importance of pre-existing structures and stresses to dike-induced earthquakes: the 2014-15 Bardarbunga-Holuhraun rifting event, Iceland (Winder, Woods, Augustdottir, White & Brandsdottir)

Very many congratulations to you both!!

<https://www.egu.eu/awards-medals/ospp-award/>

GMPV Science Officers



Silvio Ferrero (University of Potsdam) investigates high temperature processes involving melt and fluids in collisional settings by targeting metamorphic rocks re-equilibrated over a wide range of depths. His favourite tools are microstructures, melt and fluid inclusions and mineral/melt chemistry.



Urs Schaltegger (University of Geneva) and his group use thermal ionization, noble gas, and ICP mass spectrometry for isotope geochemistry and geochronology. His main research interest is in using high-precision U-Pb geochronology to resolve the timescales of orogenic and magmatic processes in the Earth's crust, of amplitude and rates of climate change in the geological past, and of isotope systematics in accessory minerals.

Chiara Maria Petrone (Natural History Museum, London) is a volcano petrologist working on understanding the dynamics of plumbing systems at active volcanoes with particular focus on timescales and dynamics of pre-eruptive processes, with application to volcanic hazard assessment.



Jörg Hermann (University of Bern) undertakes multidisciplinary studies of high-grade metamorphic rocks combining petrology, geochemistry, experimental petrology, structures and tectonics. He focusses on trace element and volatile recycling in subduction zones, trace element systematics and accessory phase behaviour during high-grade metamorphism, and the Earth's deep water cycle.



GMPV Science Officers

Marco Viccaro (University of Catania). His research activity is chiefly focused on the nature and timescales of magma differentiation, and magma ascent and degassing. He is involved in various multi-disciplinary scientific collaborations aimed at defining the role of active tectonics on volcanic processes through field-based surveys, and using intratelluric dynamics of fluids from the analysis of seismic signals.

David Dolejs (University of Freiburg) is a petrologist with broad interests in magmatic and hydrothermal systems, fluid-rock interaction and the formation of ore deposits. His approach to these problems involves analytical studies, laboratory experiments, and thermodynamic and kinetic simulations.

Brendan McCormick Kilbride (University of Manchester) is interested in the behaviour of volatiles in magmatic systems. He draws on satellite-, field-, and laboratory-based methods to understand the origins of the gases emitted by volcanoes, especially at subduction zones, and relate measurements of gas chemistry and flux to imminent changes in levels of volcanic unrest. He is currently focussed on the volcanoes of Papua New Guinea, in the Western Bismarck, New Britain and Bougainville subduction zones.

Anja Schmidt (University of Cambridge) combines expertise in atmospheric science, climate modelling, and volcanology to advance the current understanding of volcanic impacts and hazards. In particular, she is interested in the impact of volcanism on atmospheric chemistry, climate, air quality, human health, ecosystems and aviation.



GMPV Science Officers



Eleanor Jennings (Birkbeck, University of London) uses igneous geochemistry to understand magmatic processes on Earth and beyond. She uses a combination of analytical, experimental and modelling techniques to investigate processes ranging from planetary accretion through to mantle melting and crustal magmatic systems.



Owen Weller (University of Cambridge) is interested in structural and metamorphic processes that occur within the lithosphere, and how these processes have changed over geological time. He integrates field and petrographic observations with phase equilibria modelling, thermal modelling, high-temperature geochronology and trace element geochemistry to decode the tectonothermal history of high-grade terranes.

Andrea Di Muro (Observatoire volcanologique du Piton de la Fournaise, La Reunion) focusses on the physico-chemical processes controlling the evolution of volcanic systems in time and space. He tackles these problems using a combination of field analysis, bulk rock geochemical data, melt and fluid inclusion data, crystal equilibria and gas composition and fluxes.



Evgenia Ilyinskaya (University of Leeds) focuses on volcanic gases and aerosol particles, with the overarching aim of monitoring volcanic activity and its impact on the environment and the atmosphere. Her work involves sampling and measurement campaigns at active volcanoes and laboratory analyses.



The GMPV ECS Team



Emily Mason
GMPV ECS rep.

University of
Cambridge (UK)



Mike Jollands
blog editor

Lamont-Doherty
Earth
Observatory,



Giulia Consuma
Facebook manager

University of Bologna (Italy)



Simona Gabrieli
*Events and
sponsorship*

University of
Aberdeen, (now
based in Italy)



Frances Deegan
Twitter manager

Uppsala University
(Sweden)



Francesco Giuntoli
*Academic events &
careers*

University of Bologna
(Italy)



**Gabriela 'Ela' Bunga
Naen**
Instagram manager

Kyushu University
(Japan)



Who are the early career scientists?

The technical EGU definition:

- undergraduate or postgraduate (Masters/PhD) student or
- a scientist who has received their highest degree (BSc, MSc, or PhD) within the past seven years*.

Provided parental leave fell into that period, up to one year of parental leave time may be added per child, where appropriate.

What do the ECS reps do?

- EGU has 22 divisions, and each has an ECS rep.
- The ECS teams normally run the social media, blog and some of the social events for their division.
- The ECS reps across EGU also organize many of the short courses, 1-2 Great Debates, and many other initiatives.
- The ECS reps represent the needs of early career scientists across EGU and take your concerns and ideas to the main EGU board, via the union-level ECS rep: Raffaele Albano



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GMPV ECS team activities and how you can get involved...

- Contact us if you want to share your research or your thoughts on our **blog!** (*search EGU GMPV blog online*)
- Let us know if we can share your research or announcements on **social media!**
- Let us know if you have any thoughts on **how the ECS experience at EGU could be improved!**
- Want to get involved? Please get in touch if you would like to be part of the ECS team! Upcoming vacancies: **new blog editor** (beginning 2021); **overall coordinator vacancy** (before GA 2021)



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What are we doing in GSO2020?

- Providing you with **GMPV highlights** on our blog and social media
- Shared GMPV-TS **social** (aimed at ECS but all welcome) on Thursday 7 May @ 7pm CEST on zoom (check the program for details of how to join – event code NET13)
- **Kids art activity!** Submit your kids' artwork via email to ecs-gmpv@egu.eu or add the hashtag #shareEGUartKIDS to your social media post



Join us for the **TS-GMPV** joint early career scientist social!
Thursday 7 May 2020

19:00-19:45 CEST (check the EGU official programme for joining details - all welcome)

There will be the opportunity to chat in **small break-out sessions**, and **discuss your experiences of EGU's online conference** this year, and enjoy some **interactive activities** in these unusual and challenging times.



*What you need to bring:
yourselves + drinks and snacks!
(we're just sorry we can't provide them this year!)*



Logo by Maike Neuland (rep for Planetary and solar system sciences)



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What you can look forward to at the 2021 GA

- Short course on careers inside and outside of academia, specifically for people in GMPV scientific disciplines – organised by Francesco
- GMPV social at 7Stern Bräu (right)
- Meet the ECS team events in the ECS room (maybe you have not discovered this yet!)
- Start thinking about whether you'd like to get involved in our team!



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Bunsen Medal Committee for 2020/2021

Chair



Mike Burton
(University of
Manchester)



Holly Stein
(University of
Colorado)



Graham Pearson
(University of
Alberta)



Daniela Rubatto
(University of Bern)



Andrew Putnis
(Curtin University)



Clare Warren
(Open University)

Usually there is a vote on the committee membership. This year, we can't have a vote, so please let me know if you want to raise an issue.

Many thanks to
Tetsuo Irifune who
rotates off this year.



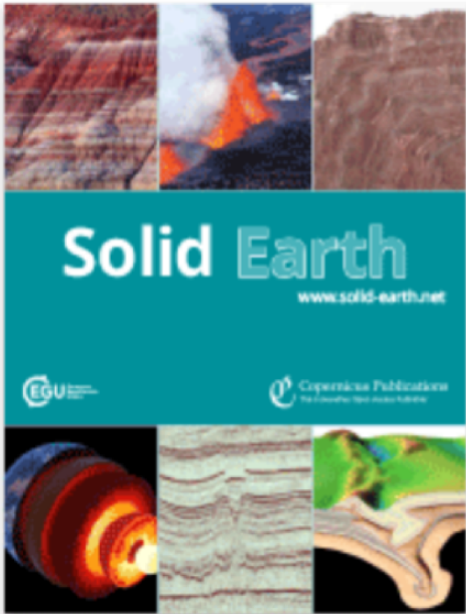
And many thanks
and best wishes to
Evgenia Ilyinskaya
who is on maternity
leave



Mentoring scheme for GMPV ECS members| convening a session

- One of the most important building blocks of the EGU is the idea that the GA is built from the bottom-up, with session proposals coming from our members. The GMPV team is very keen to encourage ECS members to propose and convene sessions. We therefore ask all experienced convenors to volunteer to take under their wing an ECS member, to show them the ropes and to give them the confidence to propose sessions for GA2021.
- If you are a principal convenor of a session this year, and one of your co-convenors is an ECS, please consider proposing the same session in 2021, with your ECS as principal convenor and you in a supporting role.
- And to all our wonderful ECS GMPV members: please feel free to approach any of the GMPV team, either Science Officers or the GMPV ECS team, for advice, help and support in proposing and convening sessions. We'd love to hear from you!

Solid Earth: the EGU journal for GMPV contributions



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Solid Earth (SE) publishes multidisciplinary research on the composition, structure, and dynamics of the Earth from the surface to the deep interior at all spatial and temporal scales.

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Definitions

Abstracted/indexed

- Science Citation Index Expanded

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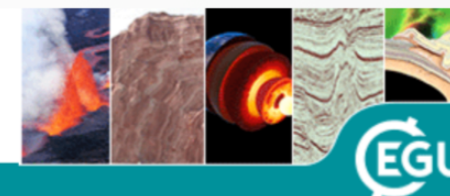
Core and mantle structure and dynamics

Crustal structure and composition



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Crustal structure and composition

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- **Stratigraphy, sedimentology, and palaeontology** | E. Samankassou, J. Eggenhuisen, S. Gardin, and A. Stroeve
- **Geodynamics, geodesy, gravity, and geomagnetism** | S. Buiter, J. Aubert, A. Davaille, T. Gerya, N. Gillet, M. Manda, and S. McClusky

Recent papers

27 Mar 2019

Actors, actions and uncertainties: Optimizing decision making based on 3-D structural geological models

Fabian Antonio Stamm, Miguel de la Varga, and Florian Wellmann

Solid Earth Discuss., <https://doi.org/10.5194/se-2019-57>, 2019

Manuscript under review for SE (discussion: open, 0 comments)

27 Mar 2019

The internal structure and composition of a plate boundary-scale serpentinite shear zone: The Livingstone Fault, New Zealand

Matthew S. Tarling, Steven A. F. Smith, James M. Scott, Jeremy S. Rooney, Cecilia Viti, and Keith C. Gordon

Solid Earth Discuss., <https://doi.org/10.5194/se-2019-62>, 2019

Manuscript under review for SE (discussion: open, 0 comments)

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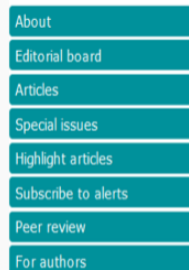
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- the complete **manuscript** (title, authors, affiliations, abstract, text, tables, figures) as a *.pdf file. Data sets, model code, video

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2020/21 EGU Governance Review

A governance review is an opportunity for the EGU to reflect on its governance arrangements in order to best serve the current and future needs of the organisation, the members, the scientific community and global concerns.

In particular, the governance review will:

- determine whether the governance processes and structures of the EGU are fit for purpose
- make recommendations for any changes to better serve the current and future needs of the EGU and its members

Objectives of the EGU Governance Review

To review the governance processes and structures of the EGU, and make recommendations for any changes to enable the organisation:

- to best deliver its [Mission and Vision](#)
- to best serve the current and future needs of the organisation and its members;
- to ensure EGU structures deliver appropriate scientific and professional diversity and representation amongst EGU committees and boards

Terms of Reference: The full EGU Governance Review Terms of Reference [is available to download here](#)



Governance Review Panel

Toby Rhodes (Independent Chair)

Ulrich Pöschl (Publications Committee Member, AS)

Raffaele Albano (outgoing ECS Representative, NH)

Susanne Buiter (outgoing Programme Committee Chair, TS)

Claudia Jesus Rydin (Chair, Equalities & Diversity Working Group)

Katja Fennel (Chair, Publications Committee, BG, OS)

Helen Glaves (outgoing Division President, ESSI)

Dan Parsons (Division President, GM)

Giuliana Panieri (outgoing Division President, BG)

Chris King (Chair of Education Committee)

Philippe Courtial (EGU Executive Secretary)

- The Governance panel will convene in late May 2020, and conduct their review over the following 9-12 months.
- The Governance Review will produce an interim report to the EGU Council in October 2020, and a final report with recommendations in January 2021.
- The Governance Review will report to EGU members at the 2021 EGU General Assembly. If any changes to EGU governance require EGU Members to vote, this will take place at the EGU General Assembly.
- Implementation of any agreed governance changes will take place following the 2021 EGU general assembly

EGU members may input their views to the Governance Review via their divisional representatives on EGU Council

EGU members may also contact the Governance Review Panel directly via email at:

governancereview@egu.eu