AGU Seismology Section News (August 2021)

(0) Introduction

We live in challenging times, with our health being just one of many possible concerns. As our health concerns are changing, many of us have had the privilege of receiving a vaccine against COVID-19 and are considering attending the AGU Fall Meeting 2021 in person. The meeting will have many virtual options. Regardless of the way in which you plan to participate, we look forward to seeing you and your work at the meeting. Please remember that the abstract submission deadline is on 4 August 2021.

Please also remember the seismologists who laid the groundwork for your work, including those who have passed on and lost their voice. Honor their legacy by reading their publications and using the evidence they put forward as a foundation from where you do your original research at the next level.

Given this century’s overwhelming growth in open data, computational power, sensor development, discovery of new phenomena and connections between them, shifting societal emphasis towards environmental sustainability, and methodological advances in signal detection, classification, and analysis, our field of seismology is in a great position to take a leap forward in the type of research questions we pursue, the type of applications we attempt, the type of validation that is necessary, and the connections we strengthen with other disciplinary areas in AGU.

We hope this newsletter will provide you with practical information along the way. We look forward to your feedback and other conversations about the roles AGU plays or can play for you.
(1) AGU Fall Meeting 2021, Call for Abstracts

The AGU Fall Meeting 2021 (#AGU21) is a hybrid meeting, which optimizes the experiences of both on-line an in-person attendees. The in-person component will be in New Orleans, Louisiana, USA, and will be held from 13 December to 17 December 2021. When submitting each of your abstracts (yes, two first-author abstracts are allowed this year!) to a session you can choose the general seismology session or one of 24 seismology special sessions convened and chaired by members from our seismology community. Please note that the abstract deadline is 4 August 2021!

Presenters who are graduate students are strongly encouraged to sign up for the Outstanding Student Presentation Award (OSPA) program, which sends expert judges to your presentation who will give you feedback about it. All non-student attendees are encouraged to sign up as an OSPA judge and judge at least three presentations – it is a great way to learn new science, practice reviewing and mentoring, and invest in the quality of seismology research.

If you can afford it, please consider donating to AGU when you register for the meeting. Every donation of at least $50 incentivizes AGU to provide additional funding to our section. As for Fall Meetings in past years (including 2020), AGU will offer travel and child care grants, and there will be a Gutenberg Lecture, followed by a section business meeting and reception on December 14.

We have collected all the seismology sessions of the 2021 AGU Fall Meeting, along with URLs, on our AGU Connect website to make it easier for you to explore where you would like to submit your 2021 AGU Fall Meeting abstracts.

(2) Community Discourse

During the past four months, our Twitter account (@AGUSeismology) gathered 164 new followers. Thank you, 1277 followers! Please tag us to share seismology discoveries, stories, opportunities, questions, feedback, etc.

This summer, we started the new video series ‘Read the paper with the author’. In this series, we invite authors of newly published papers to introduce their work through lightning videos. We highlight these new research findings, especially for early-career researchers, on our social media channels, Twitter and Facebook. We also welcome you to recommend the work of your colleagues or self-recommend research (contact our section’s Communications Specialist Jiaqi Li), to help us promote and spread seismology.

Our YouTube channel ‘AGU Seismology’ has been created. The above lightning videos are placed here, and more and more content will be added (including the ROSES lectures).

AGU Connect provides access to a variety of discussion communities and we are pleased to announce the newest one: Industry-generated Legacy Seismic Data. If you are interested in discussion the preservation and sharing of industry seismic
and other geophysical data for fundamental research purposes, please join the community and post your ideas, thoughts, and contributions.

(3) ROSES 2021 (Seasonal Seismology School)

This year, the AGU seismology section is offering the ROSES (Remote Online Sessions for Emerging Seismologists) summer school between 8 June and 17 August 2021. ROSES takes full advantage of the revolution in online learning that has emerged through our collective experiences studying remotely through the past year. The course offers both synchronous and asynchronous learning options, bolstered by a cohort-based learning environment that continually interacts through a Slack workspace. The course is structured to include lectures on advanced topics in seismology that are coupled with laboratory sections that give students immediate opportunities to apply what they have learnt. This year, ROSES has more than 300 accepted students, spanning countries across the world including the US, China, India, Australia, Nigeria, Canada, Mexico, and the UK. The course covers both traditional topics including Seismic Tomography, Event Location, Synthetic Seismogram generation, as well as cutting-edge material including Distributed Acoustic Sensing and Machine Learning. This year, lecture materials can be found on the course GitHub page. Available reference materials include lecture materials from the 2020 offering of ROSES and a paper describing the course and lessons learned that has been recently published in Seismological Research Letters.

ROSES 2021 is co-organized by Fransiska Dannemann Dugick, Liam Toney, Nate Stevens, Sydney Dybing and Anant Hariharan and advised by Suzan van der Lee, American Geophysical Union (AGU) Seismology Section president. Please direct any questions to roseeismo@gmail.com.

(4) 2022 nominations for AGU honors

Have you ever taken a look at the vast array of American Geophysical Union awards, medals, prizes, fellowship status, and scholarships extended each year? And do know about our section’s Keiiti Aki Early Career Award and Paul G. Silver Award for Outstanding Service? If you know one or more seismologists who fit the description for one or more of these honors, please start planning to nominate them in 2022, especially if your nominee has not already received other career honors. Nominations are due in March and April of 2022 and can be submitted by anyone, including seismologists who are just starting their careers.

(5) The Seismica Initiative: creating a Diamond Open Access journal for the seismological community

The true cost of publishing and accessing scientific literature remains a contentious issue amongst scientific researchers, institutions, and funders. While Open Access (OA) publishing models strive to aid the universality of science, OA options are often associated with high publication charges, raising concerns regarding financial
gatekeeping.

The **Seismica** initiative is a community effort to launch a Diamond OA journal in seismology and earthquake science to openly, equitably and ethically disseminate peer-reviewed scientific findings, inspired by the successful volcanology community journal Volcanica. Diamond OA publishing does not generate revenue from reader or library subscriptions, nor charge article processing fees to authors. As such, **Seismica** is free-to-read and free-to-publish. Any community-led journal requires support from a broad segment of the scientific community to flourish. Following community discussions with over 100 participants, a small “task force” has been synthesizing a set of key requirements and corresponding actions, including defining **Seismica’s** scope, a logo competition, discussing community engagement, legal matters and partnerships for online publication. A community vision document has been compiled mapping out a route towards launching the journal ensuring a sustainable community-led future.

This fall, **Seismica** will be looking for volunteers to join its editorial team, representing diverse scientific backgrounds, career stages, regions and expertise. We invite your participation, either by partaking in the discussions on the **Seismica Slack channel**, taking up editorial roles, or simply spreading the word, and, starting in 2022, submitting your work and prioritising us in your reviewing efforts. Contact us via www.seismica.org, on Twitter (@WeAreSeismica) or by email (info@seismica.org).

**Seismica** task force: Alice-Agnes Gabriel, Martijn van den Ende, Lucile Bruhat, Gareth Funning, Stephen Hicks, Romain Jolivet, Thomas Lecocq & Christie Rowe.

---

(6) Honor and Educator

AGU’s Education Section launched a new **Honor an Educator** program. You are encouraged to recognize a mentor (teacher, advisor, colleague) who has played a role in your own success through a gift to this fund. If you so choose, AGU will send a digital certificate of appreciation to your honoree.

The money raised through your gifts will be used by the Education Section to provide new opportunities for interested and engaged K-12 teachers to attend the Fall Meeting. Your section benefits as well, because contributions of $50 or more count towards AGU’s incentive funds calculations.

All AGU members are encouraged to honor the mentors and teachers who helped
and inspired us to be better scientists, teachers, and mentors. Honor an Educator here.

(7) Volunteers needed

We are looking for reviewers of applications for Student Travel Grants for the 2021 Fall Meeting. Designated Fall Meeting Student Travel Grant reviewers will individually score the seismology section’s student travel grant applications (applications are due 18 August). The review period will take place in late August and early September. Applications will take approx. 15 minutes for reviewers to read and score. Contact suzan@northwestern.edu if interested.

AGU is also looking for volunteers to join the 2021 OSPA Advisory Group (service until February 2022). Contact clundquist@agu.org if interested.

(8) Recent M6.0 in North-East India: Long drawn aftershocks and early onset liquefaction

An earthquake of Magnitude Mw6.0 (USGS) occurred in Sonitpur, Assam, India, on 28 April 2021, with an epicenter at 26.690°N and 92.360°E, and a focal depth of 34 km at 07:51:25 IST. Preliminary analysis shows that the event and its aftershocks are located near the Kopili Fault and close to Himalayan Frontal Thrust (HFT). The area is seismically very active, falling in the highest Seismic Hazard Zone V (Indian Classification) and is associated with collisional tectonics in which the Indian plate subducts beneath the Eurasian Plate. The focal mechanism of the event was mostly dip-slip. A total of 18 aftershocks of magnitude range M2.3 to M5.0 were felt within 24 hours after the mainshock. State authorities now report that there might have been more than 70 aftershocks of M2.5+, with tremors felt even a month after the mainshock. Major damage to buildings was reported within 100 km from epicenter, but human injury was minimal with no fatalities reported mainly because of the epicenter being in a sparsely inhabited area.

A major number of early onset liquefaction events were reported within the first hour or so of the mainshock, with videos of “the ground flowing out” becoming viral on social media. The USGS has estimated that the liquefaction triggered by this earthquake is significant in severity and (or) spatial extent, with the approximated area exposed to the liquefaction being close to 1000 km2 and having hundreds of thousands of people living in it. Watch a video of the post-earthquake coverage.

Best regards,

Suzan van der Lee (AGU Seismology Section President)
Colleen Dalton (AGU Seismology Section Secretary)
Martha Savage (AGU Seismology Section President-elect)
Anne Sheehan (AGU Seismology Section Past President)
Qinya Liu (Fall Meeting Program Committee)
Alice-Agnes Gabriel (Fall Meeting Program Committee)
Jiaqi Li (Early Career Exec Member and Communications Specialist)
Anant Hariharan (Student Exec Member)
Pritom Sarma (Student Exec Member)
Nate Stevens (Student Exec Member)
Liam Toney (Student Exec Member)

AGU supports 130,000 enthusiasts to experts worldwide in the Earth and space sciences.

© 2022 AGU All rights reserved
2000 Florida Ave NW, Washington DC 20009
http://www.agu.org | Manage Preferences

This email was sent to jli@epss.ucla.edu. If you no longer wish to receive these emails you may manage your preferences at any time.