THE SEISMO-V-GRAM

News and info to help our student and early-career scientists advance their careers

Seismological Society of America: Advancing Earthquake Science Worldwide

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Get Ready to Explore Seismic Tomography

SSA's <u>first two technical sessions</u> for its Seismic Tomography meeting are coming soon. "Cutting-edge Methods for Seismic Imaging," will take place 6 October and 10 November. Attending the full series of online sessions is free for SSA members, and non-members can attend the full series for \$100.

Meeting co-chairs Andreas Fichtner from ETH Zürich and Clifford Thurber from University of Wisconsin-Madison share their thoughts on what attendees can expect in the five virtual sessions running from October 2020 to April 2021, leading up to <u>the in-person meeting</u> in October 2021 in Toronto.



Seismo-gram: Why have a meeting on seismic tomography now?

Andreas Fichtner: It's an amazing time right now for two reasons. The first one is that we're starting to have an incredible amount of data that give us amazing coverage. And at the same time, our computer power is growing very rapidly. So we can suddenly start to apply methods to image the internal structure of the Earth that just a few years ago people would not dare to dream of. It's a very active community with a lot of creative minds producing interesting new methods.

Seismo-gram: Why should people-especially students-attend these sessions?

Clifford Thurber: With AGU, SSA and all these in-person meetings being canceled, the opportunity to network with people has really been disrupted. For students presenting and attending, this is a great opportunity to get feedback from advanced career people, people who in an ideal world might be on their committee. I wish this existed back when I was pursuing my Ph.D.



It's also a nice combination of talks. Sometimes you'll have to get your thinking cap on in terms of understanding creative methodology, and then sometimes we'll want you to put your geologic hat on and think about what a model means, or how we can validate it.

Seismo-gram: What can attendees expect from these virtual sessions?

AF: After each presentation, there will be time for questions and answers through the Zoom interface for each speaker. Then at the end of the talks, there will be a panel with discussants, who will be some of the most prominent figures in our field. So for the

first session in October, the discussants will be Jeroen Ritsema [University of Michigan] and Carl Tape [University of Alaska Fairbanks].

Then there will be individual Zoom rooms for all of the speakers, so that after the presentation and discussion round, there's an opportunity for everybody to check in with them. Our idea is to at least mimic something like standing in front of your poster at a conference.

Seismo-gram: Abstract submissions for the final three 2021 virtual technical sessions open in October. What kinds of submissions are you looking for?

CT: I don't have any specific topics to encourage or discourage, but certainly fairly routine applications of existing tomography methods to some region of the Earth are not what we're after...our emphasis is on some form of novelty in the work, pushing the envelope.

AF: We want to see innovative approaches to seismic tomography that address uncertainty quantification, the integration of large data volumes, computation efficiencies, quantitative approaches to the interpretation of tomographic images, and new discoveries of Earth structure at any scale that are of broad interest.

Seismo-gram: For those new to tomography, any recommended reading for an overview of the field?

AF: I really like Guust Nolet's book <u>A Breviary of Seismic Tomography</u>. Also Nick Rawlinson's article "<u>Seismic Tomography: A Window into Deep Earth</u>" is very readable. When I want my students to learn the basics about seismic tomography, I also often recommend the 1994 monograph by Iyer & Hirahara on <u>Seismic</u> <u>Tomography: Theory and Practice</u>.

Get a Jump on Your Career

Mark your calendar to stay connected to SSA and its career-development opportunities.

1 OCTOBER: MEMBERSHIP RENEWALS OPEN It's time to renew your membership with SSA and enjoy all that our community offers, including an expanding list of virtual trainings on topics you care about, bimonthly mentoring sessions with veterans in the field, and free access to our virtual meetings, including our expanded five-day 2021 Annual Meeting: A Virtual Connection. Renew your membership or join SSA today!

21 OCTOBER: VIRTUAL INTERVIEWING AND THE JOB TALK Looking to land that dream job? In this training, Alaina Levine of Quantum Success Solutions will tell you what you should be doing before, during and after a virtual interview, and how to adjust light/sound and look professional. You'll emerge with new tools to deliver an oral presentation that showcases your knowledge, expertise, enthusiasm and collaborative nature. <u>Register today</u>.

21 OCTOBER: HOW TO CONNECT, ADVANCE SEISMOLOGY ON CAPITOL HILL In the next session of SSA Connects, a mentoring program that supports group discussion, two legislative aides will share their perspective of the policymaking process and how scientists can be most effective in working with members of Congress and influencing policy. Featured mentors are Annie Hoefler, senior professional staff

Senate Energy & Natural Resources and Carisa Bunge, legislative assistant, Congressman Joe Neguse, U.S. House of Representatives. Moderator: Elizabeth Duffy, SSA's government relations liaison. <u>Register</u> today.

1 NOVEMBER: ANNUAL MEETING "TRAVEL" GRANT APPLICATIONS OPEN Our upcoming Annual Meeting will be a virtual experience without any travel costs for attendees, but SSA is still offering grants to help our members join the conversation. Beginning 1 November, students may apply for 2021 Annual Meeting "Travel" Grants, which will cover registration and abstract submission fees. Sign up for <u>SSA's Travel Grant Email</u> to stay on top of all travel grant news.



17 NOVEMBER: BANISH IMPOSTOR SYNDROME FOR GOOD! Imposter syndrome can trick someone into believing they are unworthy and a fraud. It can stop the pursuit of opportunities that advance both individual careers and our science. In this training, Alaina Levine of Quantum Success Solutions offers strategies and tactics to keep this syndrome from entering our members' brilliant minds. Register <u>today</u>.

Looking for a Job?

Visit our **Job Listings page** to search for a job or post one.

Have a Career-Related Question?

Email The Seismo-gram to share feedback on this issue or ideas you'd like to explore in the future.



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