2021 Eastern Section of the Seismological Society of America (ES-SSA) Annual Meeting Program

Important Dates:

Synchronous (live) presentations: Oct. 19-20 2021 12-2 pm EST
Poster presentations: Oct. 18-22 2021
Live Q/A sessions for the poster presentation: Oct. 19-20 2021 2:30-4 pm EST
Live Jesuit Seismological Association (JSA) Award ceremony: Oct. 19 2021 2:00 pm
Live ES-SSA business meeting: Oct. 20 2021 2:00 pm

Co-Chairs:

Andy Newman (Georgia Tech)
Zhigang Peng (Georgia Tech)
Contact: EasternSectionMeeting@seismosoc.org

Note:

1. We will use gather.town as the live meeting platform (both oral and poster sessions), and youtube as the platforms for your pre-recorded presentations and 1-min lightning talks. To access the synchronous meeting information and list of poster presentations, please register at https://www.seismosoc.org/inside-eastern-section/annual-meeting/
2. We expect that all the participants follow SSA's Meeting Code of Conduct (https://www.seismosoc.org/meetings/code-of-conduct/), and standard etiquette practices to ensure a smooth online meeting experience.
3. Please do not share the meeting link/passcode and presenter's presentation link to others. Instead, please encourage them to use this registration form to obtain related information.
4. Additional guidelines on how to prepare and upload your presentations can be found in page 5 of this document.

1. Program

Student presentations are marked; the abstract ID in front of the title can be used to find the corresponding abstract in the later portion of the meeting program.

Tuesday 10/19/2021 12-2 pm EST

Session 1: Introduction, Plenary Talk (12-12:30 pm)

- 46. Towards an Understanding of Seismogenesis and Seismic Hazard in Eastern North America: Progress and Challenges (Sue Hough, U.S. Geological Survey) (Invited)

Session 2: Recent Events/Deployments (12:30-1:30 pm)

- 18. The Rome Trough: A Seismically Quiescent Intraplate Rift (Seth Carpenter, Kentucky Geological Survey)
- 07. Fault Orientation and Relocated Seismicity Associated with the December 12, 2018 Mw 4.4 Decatur, Tennessee Earthquake Sequence (Clara Daniels, Georgia Tech) (Student)
- 25. A Measured Quake: The 2020 MLg 3.1 in Marlboro, New Jersey, Serving to Understand and Remove the Instrument Response (Alexander Burky, Princeton University) (Student)
- 20. Improved Microearthquake Monitoring in the Source Zone of the 1886 M 7 South Carolina Earthquake (Steve Jaume, College of Charleston)

Session 3: New Techniques (1:30-2:00 pm)

- 43. A Retrospective, Machine-learning Assisted Analysis of Seismic Sequence Migrations in Jones, Oklahoma and Delineating Fault Structures (Kaycee Schaper, University of Oklahoma) (Student)
- 19. Using Machine Learning for Surface-Wave Quality Control (Chengping Chai, Oak Ridge National Laboratory)

Tuesday 10/19/2021 2:00-2:20 pm EST

Jesuit Seismological Association (JSA) Award ceremony

Tuesday 10/19/2021 2:30-4:00 pm EST

Poster Presentations Live Q/A Sessions

Session 4: Historic/Recent Events, Recent Deployments

- 10. The Milwaukee, Wisconsin, Earthquake 6 May 1947 (Sue Hough, U.S. Geological Survey)
- 12. A brand new seismic network at Querétaro state, Central Mexico (Juan M. Gómez-González, CGEO-UNAM)
- 21. First Microseismic Event Detections in Tompkins County, New York in Preparation for Geothermal Installation (Zachary Katz, Cornell University) (Student)
- 22. Evidence for complex faulting at the northern edge of the Basin and Range province from relocation and moment tensor analysis of the 2020 Stanley, Idaho earthquake sequence (Jochen Braunmiller, University of South Florida)
- 33. Seismological studies of the 2019 M5.1 Sparta Earthquake sequence, North Carolina (Miguel Neves, Georgia Tech) (Student)
- 39. Lessons and preliminary data analysis of the first DAS experiment in Oklahoma (Xiaowei Chen, Univ. of Oklahoma)

Session 5: New Techniques/Sensors

- 14. Leveraging machine learning algorithms to efficiently identify events in eastern Kentucky (Jonathan Schmidt, Kentucky Geological Survey)

- 16. Movement towards Broadband nodal instrumentation (James Lindsey, Guralp Systems Ltd.)
- 17. Novel Autonomous and Cabled OBS Solutions for Offshore Seismic Research (James Lindsey, Guralp Systems Ltd.)
- 32. Change in seismic velocity during laboratory triaxial stick-slip experiments (Kiran Pandey, University of Memphis) (Student)
- 34. Polarization based S-wave pre-selection for interferometry and near-surface Vp/Vs ratio estimation (Deepankar Dangwal, University of Oklahoma) (Student)
- 35. Magnitude Recalculation Using Relative Magnitudes for the 2011 Prague, Oklahoma Induced Earthquake (Sydney Gable, University of Michigan) (Student)
- 40. A Workflow of Phase Picking for DAS (Yanlan Hu, University of Science and Technology of China) (Student)

Session 6: Seismic Imaging, Education/Outreach

- 27. The Intriguing Variety of Things We Record with Our Raspberry Shakes: Citizen Scientists, Educators, and Research Scientists Collaborating to Monitor Our Active Planet (Alan Kafka, Boston College)
- 28. Seismic Evidence for an Intermediate Phase during the Olivine-Wadsleyite Transformation within the Subducting Pacific Slab in Kuril (Jiaqi Li, University of California, Los Angeles)
- 30. Assessment of Non-Geoscientist's Understanding of Real-Time Earthquake Information Products (Mike Brudzinski, Miami University)

Wednesday 10/20/2021 12-4 pm EST

Session 7: Site Response/Seismic Hazard (12-1 pm)

- 29. Soil Amplification in Glaciated Terrain: Geology and geomorphology based f0 model of New England (Marshall Pontrelli, Tufts University) (Student)
- 13. On the Applicability of using Horizontal-to-Vertical Spectral Ratios of Ambient Seismic Noise to Assess the Stability of Earth Embankment Dams and Levees (John Ebel, Boston College)
- 36. Empirical relationship between different source-to-site distances (Melish Kayastha, University of Memphis) (Student)
- 42. Continental Divide: Precise delineation of the CEUS/WUS ground motion boundary in the Rocky Mountain region (Will Levandowski, Boulder Geophysics)

Session 8: Earthquake Source/Faults in CENA (1-2 pm)

- 26. Potential Surficial Evidence of Low-rate Deformation in the Eastern Tennessee Seismic Zone? (Jessica Thompson Jobe, U.S. Geological Survey)
- 04. Assessment of the Earthquake Point-Source Integrated Code Algorithm for Earthquake Early Warning in Eastern Canada using Historical Earthquakes (Nicole Bell, Natural Resources Canada) (Student)
- 41. Enhancing earthquake depth estimates using dense nodal arrays for the Cushing Fault Zone (Pranshu Ratre, University of Oklahoma) (Student)
- 37. Some features of earthquake swarms (Steve McNutt, University of South Florida)

Wednesday 10/20/2021 2:00-2:20 pm EST

ES-SSA Business Meeting

Wednesday 10/20/2021 2:30-4:00 pm EST

Poster Presentations Live Q/A Sessions

Session 9: Site Response

- 02. Empirical Site Response Model using Earthquake HVSR: from using only its Peak Frequency to using the Whole Curve (Chuanbin Zhu, GFZ German Research Centre for Geosciences)
- 05. Characteristics of Nonlinear Site Response from Borehole Strong-Motion Recordings (Zhenming Wang, University of Kentucky)
- 06. Site conditions and potential earthquake shaking in southwestern Ontario (Hema Sharma, University of Western Ontario) (Student)
- 08. Investigating the Use of the HVSR Method to Measure Fundamental Frequencies of an Earth Embankment Dam (Steven Maniscalco, Boston College) (Student)
- 24. The 'Kappa Project': hard-rock attenuation at sites in Canada and France (Olga Ktenidou, National Observatory of Athens)
- 31. A Geospatial Model for Predicting Site Response Complexity (Weiwei Zhan, Tufts University)

Session 10: Ground Motion/Seismic Hazard

- 01. Far-field ground-motion model for the North Australian Craton (Trevor Allen, Geoscience Australia)
- 09. Seismic and Liquefaction Hazard Maps for Five Western Tennessee Counties (Chris Cramer, University of Memphis)
- 11. Predicted Ground Motions From Magnitude 7 & 7.3 Summerville, South Carolina Earthquakes and Building Damage in Charleston During the August 31, 1886 Earthquake (Karissa Venezia, College of Charleston) (Student)

Session 11: Earthquake Source/Faults in CENA

- 03. Earthquake source parameter inversion in the western Quebec Seismic Zone (Justin Chien, McGill University) (Student)
- 15. The 4 August 2020 Beirut Chemical Explosion (Lei Zhang, Chinese Academy of Sciences) (Student)
- 23. B-VALUE AND FRACTAL DIMENSION STUDY OF SOUTHERN CALIFORNIA SEISMICITY FROM 1982 TO 2020 (Hong Cai, Boston College) (Student)
- 38 Induced seismicity spikes during abrupt changes in injection and production rates in geothermal reservoirs (Roshan Koirala, Univ. Memphis) (Student)
- 44. Modern CENA aftershock sequences are smallish, a little lazy, and persistent (Will Levandowski, Boulder Geophysics)
- 45. Triggering of moderate-size earthquakes in Central-Eastern United States by External Stress Perturbations (Zhigang Peng, Georgia Tech)

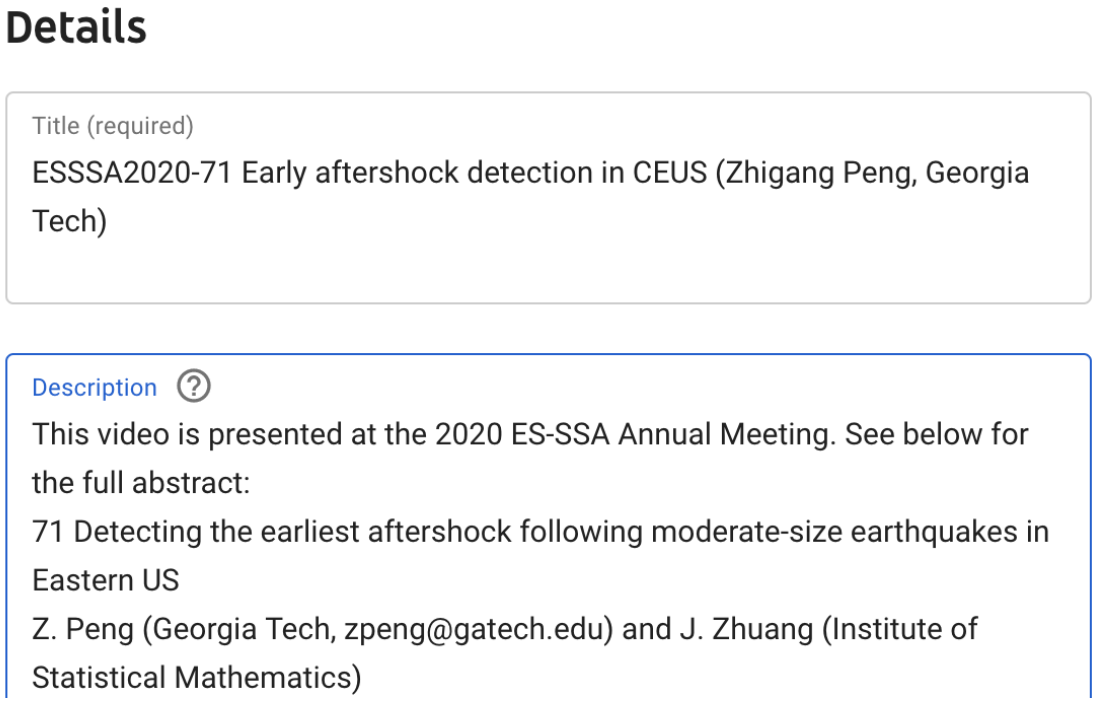
2. Guideline for Presenters

A. General Guidelines

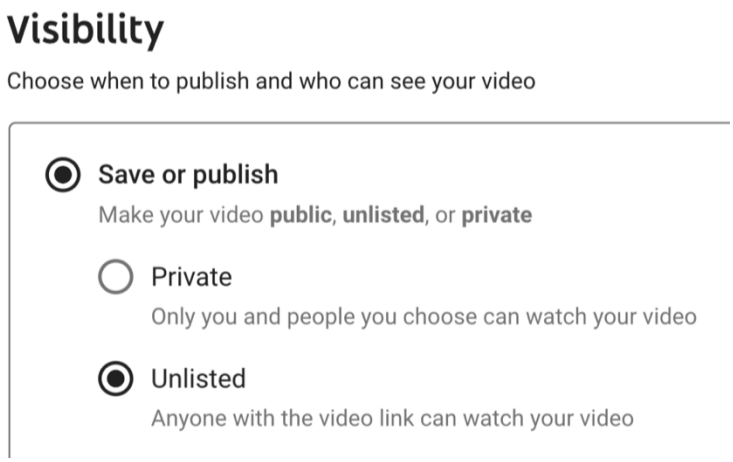
a. We would like all the presentations (both the 'live'/synchronous presentations and poster 1-min lightning presentations) to be pre-recorded and uploaded to youtube.com ahead of the meeting. You can use any software as you like to record your presentation. We recommend that you use zoom and turn on your camera when you give your presentation. Here is an example video showing how to use zoom to record your presentation:
https://www.youtube.com/watch?v=xHH5JEsa6B4

b. When you finish recording and are ready to upload your video, please put the ESSSA2021- and the two-digit abstract ID, a short title of your presentation and your name as the youtube video title (Note: 100 char. limitation). Please copy/paste your abstract in the description. You can find your abstract ID from the Full Program and Abstract Link at:
https://www.seismosoc.org/inside-eastern-section/annual-meeting/

See below for an example (from last year):
Title: ESSSA2020-71 Early aftershock detection in CEUS (Zhigang Peng, Georgia Tech)
Description: This video is presented at the 2020 ES-SSA Annual Meeting. See below for the full abstract:



b. In the Visibility option, please select "Unlisted Anyone with the video link can watch your video".



c. Once your video is uploaded to youtube, please send the link to us by email at EasternSectionMeeting@seismosoc.org by Oct. 15 2021. If you do not have a youtube account or cannot upload it to youtube, please send your videos by email.

d. If you are a student, your presentation will be evaluated by our judges for the "Best Student Presentation Award". We will make the final announcement within one week following the meeting.

B. Guideline for the Synchronous 'Live' Presentations

a. Each presenter has 15-minute time slot. Please keep your video length to be around 12 minutes, and leave 3 min for live questions/answers.
b. We will play your pre-recorded video live during the synchronous sessions. Each presenter can answer questions posted in the chat zoom during the presentation, or right after your presentation.
c. Please keep your youtube presentation available for the duration of the meeting (Oct. 18-22) so that other meeting participants can watch it in case they miss the presentation. You are free to remove the link after Oct. 22.

C. Guideline for the Poster Presentations

a. You are required to make a separate eposter in pdf format (suggested length: 36 inch height 48 or 56 inch length). Please send your pdf in attachment to EasternSectionMeeting@seismosoc.org by Oct. 15 2021. We will upload your pdf to the meeting website and share with other participants.
b. We strongly encourage you to record a one-minute lightning talk to briefly introduce your poster, focusing on why your poster is interesting/unique. You are welcome to use the same guideline as above to record your lightning talk, and share with us the youtube link.
c. (Optional) You are welcome to record a longer version of video to go over details of your poster (no more than ten minutes), especially if you cannot make it to the Live Poster sessions on Oct. 19/20 2:30-4 pm EDT.
d. We encourage all poster presenters and participants to join the live poster sessions on Oct. 19-20 2:30-4 pm EST. We will send out detailed instructions later on how to upload your poster to gather.town. There are additional breakout rooms for those who would like to discuss separately.

e. Please keep your youtube presentation available for the duration of the meeting (Oct. 18-22). You are free to remove the link after Oct. 22.