



2020 COSMOS Annual Meeting and Technical Session Program

Innovations in Ground Motion Characterization and Selection for Engineering Applications

January 27 & 28
11:00 am – 2:00 pm
Via Hopin

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Approach:

*Attendees watch 20 minute pre-recorded presentations in advance

*Live Sessions: Speakers start with 5 minute live flash presentations to provide a quick reminder of content followed by questions and group discussion

See the [2020 Technical Session](#) page at www.strongmotion.org for more information

Agenda

11:00-11:10	Welcome and Overview of Day Technical Session	Annie Kammerer
Day – 1 - COSMOS/CGS/USGS Joint Activities and New Datasets		
11:10-11:15	Moderator	Ruben Boroschek & Sean Adhi
11:15-11:20	COSMOS Noninvasive Site Characterization Guidelines: Project update	Alan Yong, Aysegül Askan, Sebastiano D’Amico, Marco Pilz
11:20-11:25	Updates on the Center for Engineering Strong Motion Data (CESMD)	Lijam Hagos
11:25-11:30	Update to the PEER NGA-Subduction Program	Silvia Mazzoni
11:30-12:15	Panel Discussion	
12:15-12:30	BREAK	
Day 1 – Synthetic/Physics-based Ground Motions		
12:30-12:35	Moderator	C.B. Crouse
12:35-12:40	Overview of SCEC Physics-Based Simulations and their engineering Applications	Christine Goulet
12:40-12:45	Effects of Simulated M9 Earthquake Motions on Reinforced Concrete Wall Structures in the Pacific Northwest	Nasser Marafi
12:45-12:50	Physics-Based High-Performance Computing Simulation of Broadband Strong Motions in 3D Earth Models: M7 Hayward Fault Earthquakes	Arthur Rodgers
12:50-12:55	Near field ground motion simulations	Mayssa Dabaghi
12:55-1:00	Guidance on utilization of simulations in engineering practice, and an example ground motion set	Jack Baker
1:00-1:40	Panel Discussion	Led by C.B. Crouse

1:40-2:00	Closing remarks/Access to simulations/Discussion of COSMOS next steps	
Day 2 – Emerging Technologies in Ground Motions		
11:00-11:05	Moderator	Nico Luco
11:05-11:10	Basin Effects in Simulated and Observed Ground Motions for Southern California	Chukwuebuka Nweke
11:10-11:15	State of the Practice: Impact of the NGA Basin Parameters from ASCE 7-16 to ASCE 7-22 in the Bay Area	Debra Murphy, Micaela Largent
11:15-11:20	Ground Motion Variability – Scaling and Mean Spectrum Modification	Silvia Mazzoni
11:20-11:25	Recent Developments in Spectral Matching to Smooth Target Spectra	Andrew Seifried
11:25-12:15	Panel Discussion and Discussion of Next Steps	Led by Nico Luco
12:15-12:30	Discussion of Next Steps and Closing of the Technical Sessions	Annie Kammerer
Day 2 – COSMOS Business Meeting		
12:30-12:45	BREAK	
12:45-1:15	COSMOS Business Meeting	Ruben Boroschek
Day 2 – Young Professionals Networking		
1:15-2:00	Young Professionals Event	TBA

Resources and information posted in the chat

Session 1:

- [The session 1 chat log](#) (with all the “yes, we can hear you”, etc cleaned up)
- Dave Boore, Journal of Earthquake Engineering, Vol. 08, No. spec01, pp. 1-41 (2004)
“Can Site Response be Predicted?”
<https://www.worldscientific.com/doi/abs/10.1142/S1363246904001651>
- Email for the CESMD: cesmd@strongmotioncenter.org

Session 2:

- [The session 2 chat log](#) (cleaned up)
- https://www.researchgate.net/publication/339172086_A_vector-valued_intensity_measure_for_near-fault_ground_motions
- CESMD is providing a special studies page for researchers to post datasets used in publications. Contact Jamie Steidl for more information.
- The web service to download the M9 CSZ motions can be found here:
<https://sites.uw.edu/pnet/m9-simulations/m9-download-tool/>
- <https://www.sciencedirect.com/science/article/abs/pii/S0267726118310741>
- <https://pubs.usgs.gov/of/2013/1102/>
- <https://journals.sagepub.com/doi/abs/10.1193/013114EQS025M>

Other chats

- USGS-hosted NorCal EQ Hazards Workshop next week, please see agenda and register here if you are interested! <https://earthquake.usgs.gov/esc/workshop/>