

PRELIMINARY PROGRAM



GEO-EXTREME 2025

Long Beach, California | November 2-5

ASCE Specialty Conference

Geotechnical Engineering for Extreme Events



Hyatt Regency Long Beach

www.geo-extreme.org

Schedule at a Glance *(Subject to change)*

Sunday, November 2, 2025

8:00 a.m. – 5:00 p.m.	Full Day Short Courses
5:00 p.m. – 7:00 p.m.	Welcome Reception with Exhibitors and Sponsors

Monday, November 3, 2025

8:00 a.m. – 5:00 p.m.	Exhibits Open
8:00 – 8:10 a.m.	Announcements
8:10 – 9:45 a.m.	Morning Keynotes: Seismic
9:45 – 10:15 a.m.	Morning Break in Exhibit Hall
10:15 – 12:00 p.m.	Technical Session 1
12:00 – 1:30 p.m.	Lunch in Exhibit Hall
1:30 – 3:00 p.m.	Afternoon Plenary 1: Recovery, Policy, Governance
3:00 – 3:30 p.m.	Afternoon Break in Exhibit Hall
3:30 – 5:00 p.m.	Afternoon Plenary 2: Reconnaissance
3:30 – 5:00 p.m.	Technical Session 2

Tuesday, November 4, 2025

8:00 a.m. – 5:00 p.m.	Exhibits Open
8:00 – 8:10 a.m.	Announcements
8:10 – 9:45 a.m.	Morning Plenary: Climate
9:45 – 10:15 a.m.	Morning Break in Exhibit Hall
10:15 – 12:00 p.m.	Technical Session 3
12:00 – 1:30 p.m.	Lunch in Exhibit Hall
1:30 – 3:00 p.m.	Afternoon Plenary 1: Wildfires
3:00 – 3:30 p.m.	Afternoon Break in Exhibit Hall
3:30 – 5:00 p.m.	Afternoon Plenary 2: Regional Modeling & Sensing
3:30 – 5:00 p.m.	Technical Session 4

Wednesday, November 5, 2025

8:00 a.m. – 12:00 p.m.	Exhibits Open
8:00 – 8:10 a.m.	Announcements
8:10 – 9:45 a.m.	Morning Plenary: Mega Landslides
9:45 – 10:15 a.m.	Morning Break in Exhibit Hall Break
10:15 – 12:00 p.m.	Technical Session 5

Invitation to Attend

FACING THE CHALLENGE OF A CHANGING CLIMATE TOGETHER

Dear Colleagues and Friends,

It is our great pleasure to invite you to attend Geo-Extreme 2025, a vital gathering of professionals committed to advancing geoenvironmental solutions for a rapidly changing world. As climate-driven disasters intensify across the globe, the role of geo-professionals has never been more critical.

Over the past 50 years, extreme weather has claimed more than two million lives and caused over \$4 trillion in economic losses, according to the United Nations. In the United States alone, weather and climate disasters in 2023 led to \$93 billion in damages and 492 deaths, as reported by NOAA. The trend is unmistakable: billion-dollar disasters are increasing in both frequency and impact, and projections indicate this will continue as global temperatures rise.

In response to these urgent challenges, Geo-Extreme 2025 is organized around the theme of "Geotechnical Engineering for Extreme Events," to focus on resilience, sustainability, and innovation in geoenvironmental engineering. We recognize the necessity of timely, forward-thinking actions—evaluating existing infrastructures, designing risk reduction systems in vulnerable regions, refining traditional geosystems, and developing new climate-adaptive technologies and risk tools.

Long Beach, California, the venue for Geo-Extreme 2025, provides a particularly relevant backdrop, having recently witnessed the devastating impacts of wildfires and other extreme climate events affecting the greater Los Angeles area.

The conference brings together an exceptional program of topics that reflect the evolving needs of our profession. Sessions will feature research and case studies on big data analytics, compound and cascading event modeling, and climate-resilient infrastructure design. Experts will share lessons learned from real-world disasters, explore post-disaster materials management, and present innovations in seismic hazard mitigation, permafrost stability, and coastal resilience.

In addition, we will examine the increasing role of decision-making frameworks, including planning, preparedness, and recovery efforts, and the importance of integrating social equity and community resilience into all aspects of geoenvironmental engineering for extreme events.

Whether you are a researcher, practitioner, policymaker, or student, this conference offers an unparalleled opportunity to connect with global experts, exchange cutting-edge ideas, and collaborate on solutions that will shape the future of resilient infrastructure. Together, we can strengthen our collective knowledge and contribute to the safety and sustainability of communities worldwide.

We are honored to host you for this critical event and look forward to the ideas, discussions, and partnerships that will emerge as we address the complex challenges of climate extremes through innovation, interdisciplinary coordination, and resilient geoenvironmental engineering solutions.

Warm regards,

Conference Co-Chairs

Daniel Pradel, Ph.D., P.E., D.GE, F.ASCE, *The Ohio State University*

Navid H. Jafari, PhD, A.M.ASCE, *Texas A&M University*

Program Committee

Conference Co-Chairs

Daniel Pradel, Ph.D., P.E., D.GE, F.ASCE, *The Ohio State University*

Navid H. Jafari, PhD, A.M.ASCE, *Texas A&M University*

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Stefan G. Flynn, P.E., M.ASCE, *U.S. Army Corps of Engineers*

Ghada Ellithy, Ph.D., P.E., A.M., *Embry-Riddle Aeronautical University*

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Thomas Sours, *Senior Manager, Media & Event Sales, Advertising Sales*

About the Conference

Worldwide, extreme weather has caused two million deaths and over \$4 trillion in costs over the last 50 years, according to the UN. During 2023, weather and climate disasters resulted in \$93 billion in losses and 492 deaths in the United States alone, according to NOAA. Historical records show that the number of billion-dollar disasters is on the rise. Despite uncertainty in the projections, most climate models suggest an increase in both frequency and intensity of extreme events under climate change.

Mitigating the consequences of future extreme events will require geo-professionals to take timely actions, including, but not limited to: evaluation of existing earthen structures, design and construction of protective structures in areas where an increased probability of damage is expected, refinement of existing geo-system designs, and development of new climate-adaptive measures and risk assessment tools.

Conference Topics

- To share the lessons learned from the impact of recent extreme events on the performance of infrastructure and geo-structures (e.g., embankments, dams, levees, slopes, walls, foundations, pavements, tunnels, landfills, earth retaining systems, foundations).
- To share current and potential future applications of extreme value analysis and climate modeling in geotechnical practice and design.
- To share the latest research advances on how the rate and variability of a changing climate affect recurrence intervals and severity of climatic extremes.
- To share recent advances regarding soil behavior under climate extremes.
- To share recent advances, challenges, and areas of future research regarding the effects of individual and compound climate extremes and natural hazards on the short-term and long-term behavior of infrastructure and geo-structures.
- To share recent advances in post-disaster materials management including identifying amount and spatial distribution of post disaster materials and sustainable management pathways.

- To highlight the use of risk in the proposal and design phases of projects to allow stakeholders to understand the potential impact of climate extremes on infrastructure and geo-structures.
- Learn from top leaders in the industry through special plenary sessions, short courses, panels, and technical sessions.
- Network with colleagues from around the block—and around the world.
- Visit exhibitors to find the latest tools, techniques, e-programs, and more.

Sponsor & Exhibitor Opportunities: Why Should You Exhibit or Sponsor at Geo-Extreme 2025

You will have access to a much larger number of prospective key clients and business partners at one venue in three days than your sales team can reach in three months across the nation. Several hours of dedicated networking events within the Exhibit Hall during the conference will provide you with exposure to potential key clients and users and build your customer awareness of your products and relations with future customers at one venue. The event can help increase awareness of your brand, products, and services. This is an international event where quality technical programs draw experts and users from academia, industry, and agencies from across the nation and the globe. The products, services, and expertise you exhibit will become part of the conference focus and the center of attention of conference participants. The exhibit will provide an opportunity for customer interviews, first-hand information on customer needs, and competitive intelligence and comparisons.

Who Should Exhibit?

Geoenvironmental, environmental, geotechnical, hydrology, hydrogeology, and geophysics consulting firms, equipment manufacturers, end users, owners and operators, engineers, and software developers who work in fields such as geoenvironmental and environmental remediation; hazard mitigation; safety organizations; instrumentation; in-situ testing; drainage and dewatering; landfill design, construction, operation, and management; geohazard mitigation; ground improvement, and many more.

Contact Thomas Sours at tsours@asce.org or (703) 295-6243 to sponsor or reserve your booth today!