ASCE Seattle Section Geotechnical Group and Seattle Geo-Institute Chapter

40th Annual Spring Seminar

Beneath The Surface – Best Practices in Site Exploration, Lab Testing, and Seismic Design

8:00 AM to 4:30 PM, May 2, 2026 at The Mountaineers in Seattle, WA (Directions)

The ASCE Seattle Section Geotechnical Group / Seattle Geo-Institute Chapter is proud to announce our 40th annual Spring Seminar, which will be held on May 2nd, 2026 at The Mountaineers in Seattle. This year's seminar will focus on site exploration, lab testing, and seismic design. The seminar program will cover best practices, databases and tools, case studies, and lessons learned. Course attendees will be eligible to receive 0.7 Continuing Education Units (CEU) or 7 Professional Development Hours (PDH).

A continental breakfast will be served during check-in, starting at 8:00 AM, while ***presentations start at 9:00 AM***. Catered lunch will also be provided.

CONFIRMED SPEAKERS AND TOPICS

Shawn Steiner, M.S., P.E., M.B.A | Alex Leibold, P.G. ConeTec - Salt Lake Cit, UT | Seattle, WA	*Comparative Analysis of Shear Wave Velocity Measurements Across Borehole and In-Situ Methods*
Antonio Carraro, Ph.D. Washington State University, Pullman, WA	*Fabric-Sensitive Soil Mechanics: Simple Research Lessons That Can Help Improve Geotechnical Design*
Sam Sideras, Ph.D., P.E. Shannon & Wilson, Portland, OR	*Site-Specific Characterization of Local Low Plasticity Silts*
Steve Xu, Ph.D Haley & Aldrich, Inc., Seattle, WA	*Cyclic Simple Shear Tests on Dry Sand: Seismic Settlement under Regular and Irregular Loading Histories*
Jim Gingery, Ph.D., P.E., G.E. Keller North America, Seattle, WA	*The Interplay Between Site Investigation Scope and Ground Improvement Construction Costs and Risk*
Morgan Sanger, P.E., Ph.D. Candidate University of Washington, Seattle, WA	*Artificial Intelligence Across Geotechnical Engineering: From Language Models to Liquefaction*
Trevor Carey, Ph.D. University of Toronto, Toronto, ON	*Revisiting Liquefaction Triggering and Post-Triggering Straining During Cascadia M9 Megathrust Earthquakes*
Andrew Fiske WSDOT, Tumwater, WA	*Avoiding a New Coke Moment: The Thoughtful Rewrite of the GDM*

REGISTRATION

Registration information and details are available at https://seattlegeotech.org.

- To be an **Exhibitor and/or Sponsor** please contact Alec Anderson at aanderson@geopiernorthwest.com
- To be a **Volunteer** please contact Sean Philbrick at sean_philbrick@berkeley.edu

G-I GEO-INSTITUTE Seattle Chapter

More Information at
https://seattlegeotech.org/

ASCE Seattle Section Geotechnical Group

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Annual Spring Short Course

7:30 AM to 5:00 PM, May 1, 2026 at The Mountaineers, Seattle, Washington (Directions)

The ASCE Seattle Section Geotechnical Group / Seattle Geo-Institute Chapter is proud to announce our annual Short Course, which will be held on May 1st, 2026 at The Mountaineers in Seattle. Course attendees will be eligible to receive 0.7 Continuing Education Units (CEU) or 7 Professional Development Hours (PDH).

A hot breakfast will be served during check-in, starting at 7:30 AM, while ***presentations start at 8:00 AM*.** Catered lunch will also be provided.

Topic 1: *Advanced Tools for Site Response Analysis*

Site response analysis is one of the most commonly performed types of analysis in geotechnical earthquake engineering. New approaches have been developed for site response analysis that can (1) enhance the efficiency of the analysis (i.e., random vibration theory, RVT), (2) incorporate uncertainties in the input properties (i.e., statistical variation of properties), and (3) improve site response predictions at larger strains (i.e., frequency-dependent properties, kappa scaling). These advancements have been incorporated into the publicly available and open-source site response programs Strata and pyStrata. Strata is a stand-alone program that includes an easy-to-use graphical user interface for both providing input data and analyzing output results. pyStrata is a Python package that implements many of the features included in Strata, plus a few more, and allows for developing custom workflows. In this short course, we will describe the recent advancements listed above, explain their incorporation into Strata and pyStrata, and provide live demonstrations.

Topic 2: *Next Generation Liquefaction Models for Susceptibility, Triggering, and Manifestation*

In this half-day seminar, members of one of the Next Generation Liquefaction (NGL) model development teams, known as the SMT, will highlight the main outcomes of a project jointly supported by the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Bureau of Reclamation (USBR) to use the extensive NGL project's case history database to develop a suite of models for the probabilities of liquefaction susceptibility, triggering, and ground surface manifestation. The NGL models represent a significant evolution in liquefaction modeling; this workshop will facilitate understanding of how they are different and provide practical, detailed guidance on how they can be applied.

CONFIRMED SPEAKERS AND TOPICS

Ellen Rathje, Ph.D., P.E. University of Texas, Austin, TX	***Topic 1:*** *Advanced Tools for Site Response Analysis*
Albert Kottke, Ph.D., P.E. Pacific Gas & Electric, San Mateo, CA	***Topic 1:*** *Advanced Tools for Site Response Analysis*
Jon Stewart, Ph.D., P.E. University of California, Los Angeles, CA	***Topic 2:*** *NGL Models – Project Overview & Ground Motion Intensity Measure Interpolation*
Steve Kramer, Ph.D. University of Washington, Seattle, WA	***Topic 2:*** *NGL Models - Model Development Philosophy - Bayesian Framework*
Kristin Ulmer, Ph.D. Southwest Research Institute, San Antonio, TX	***Topic 2:*** *NGL Models - Laboratory-based Liquefaction Triggering Model*
Ken Hudson, Ph.D., P.G. Hudson Geotechnics, Inc., El Segundo, CA	***Topic 2:*** *NGL Models - Case History Processing & Manifestation Model*

REGISTRATION | Information and details are available at https://seattlegeotech.org.

- To be the **Event Sponsor** please contact Alec Anderson at aanderson@geopiernorthwest.com

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Spring Seminar (Saturday, May 2) Schedule Breakdown

Start Time	End Time	Presenter	Description
8:00 AM	9:00 AM	Check-in and Registration - Continental Breakfast	
9:00 AM	9:10 AM	Opening Remarks	
9:10 AM	9:50 AM	Shawn Steiner & Alex Leibold	Comparative Analysis of Shear Wave Velocity Measurements Across Borehole and In-Situ Methods
9:50 AM	10:25 AM	Antonio Carraro	Fabric-sensitive soil mechanics: simple research lessons that can help improve geotechnical design
10:25 AM	10:30 AM	Morning Break Sponsor Remarks	
10:30 AM	10:50 AM	Morning Coffee Break	
10:50 AM	11:20 AM	Sam Sideras	Site-specific characterization of local low plasticity silts
11:20 AM	11:50 AM	Steve Xu	Cyclic Simple Shear Tests on Dry Sand: Seismic Settlement under Regular and Irregular Loading Histories
11:50 AM	12:05 PM	Evan Martyn	GIGSS K-12 Outreach Recap and Recruiting
12:05 PM	12:10 PM	Announcement of ASCE GI Chapter Scholarship Winners	
12:10 PM	12:15 PM	Lunch Sponsor Remarks	
12:15 PM	1:15 PM	Lunch	
1:15 PM	1:55 PM	Jim Gingery	The Interplay Between Site Investigation Scope and Ground Improvement Construction Costs and Risk
1:55 PM	2:40 PM	Morgan Sanger	Artificial Intelligence Across Geotechnical Engineering: From Language Models to Liquefaction
2:40 PM	2:45 PM	Afternoon Break Sponsor Remarks	
2:40 PM	3:00 PM	Afternoon Break	
3:00 PM	3:35 PM	Trevor Carey	Estimating Lateral Spreading displacements from Subduction Zone Earthquakes Based on Centrifuge Testing
3:35 PM	4:15 PM	Andrew Fiske	Avoiding a New Coke Moment: The Thoughtful Rewrite of the GDM
4:15 PM	4:20 PM	Closing Remarks	
4:20 PM	5:30 PM	Happy Hour	

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Short Course Topic 1: Advanced Tools for Site Response Analysis

Site response analysis is one of the most commonly performed types of analysis in geotechnical earthquake engineering. New approaches have been developed for site response analysis that can (1) enhance the efficiency of the analysis (i.e., random vibration theory, RVT), (2) incorporate uncertainties in the input properties (i.e., statistical variation of properties), and (3) improve site response predictions at larger strains (i.e., frequency-dependent properties, kappa scaling). These advancements have been incorporated into the publicly available and open-source site response programs Strata and pyStrata. Strata is a stand-alone program that includes an easy-to-use graphical user interface for both providing input data and analyzing output results. pyStrata is a Python package that implements many of the features included in Strata, plus a few more, and allows for developing custom workflows. In this short course, we will describe the recent advancements listed above, explain their incorporation into Strata and pyStrata, and provide live demonstrations.

Morning Schedule:

Time	Topic
7:30 AM	**Check-in and Hot Breakfast**
8:00 AM	**Welcome and Introductions**
8:15 AM	Random vibration theory (RVT) site response
8:45 AM	*Statistical variations of input properties*
9:15 AM	Strata demonstration and exercises
9:45 – 10:15 AM	**Coffee Break**
10:30 AM	Discussion and Q&A
11:15 AM	pyStrata demonstration and exercises
12:00 PM	Capturing large strain site response
12:00 – 1:00 PM	**Lunch Break**

Short Course Topic 2: Next Generation Liquefaction Models for Susceptibility, Triggering, and Manifestation

In this half-day seminar, members of one of the Next Generation Liquefaction (NGL) model development teams, known as the SMT, will highlight the main outcomes of a project jointly supported by the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Bureau of Reclamation (USBR) to use the extensive NGL project's case history database to develop a suite of models for the probabilities of liquefaction susceptibility, triggering, and ground surface manifestation. The NGL models represent a significant evolution in liquefaction modeling; this workshop will facilitate understanding of how they are different and provide practical, detailed guidance on how they can be applied.

State-of-Practice Poll	NRC Report (January 2025)	GitHub Repository (ngl_tools)	Laboratory Data Download	NGL Case History Database

Afternoon Schedule:

Time	Topic	Presenter
1:00 PM	**Welcome**	
1:05 PM	Project Overview	Jon Stewart
1:20 PM	*State-of-Practice Poll*	
1:25 PM	Profile vs Critical Layer Modeling	Jon Stewart
1:55 PM	Model Development Philosophy - Bayesian Framework	Steve Kramer
2:20 PM	*Audience Q&A*	
2:25-2:35	**Break**	
2:35 PM	Laboratory-based Liquefaction Triggering Model	Kristin Ulmer
3:00 PM	Case History Processing	Ken Hudson
3:20 PM	Ground Motion Intensity Measure Interpolation	Jon Stewart
3:35 PM	*Audience Q&A*	
3:45-3:55	**Break**	
3:55 PM	Manifestation Model	Ken Hudson
4:30 PM	Closure	Steve Kramer
4:40 PM	*Audience Q&A*	
5:00	**Adjourn**	

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Registration and Site Information

- **Register via EventBrite**. Information and details are available at https://seattlegeotech.org.
  - Spring Short Course EventBrite Registration
  - Spring Seminar Eventbrite Registration

- **Register early.** Registration will be on a first-come first-served basis.

- **Registration includes** morning and afternoon refreshments, lunch, and a bound seminar program and electronic access information to the presentations for both the short course and seminar.

- The **Spring Short Course** will be held on Friday May 1st, 2026 at **the Mountaineers**, 7700 Sand Point Way NE, Seattle, WA 98115. The venue changed due to short notice cancellation from the previous venue.

- The **Spring Seminar** will be held on Saturday May 2nd, 2026 also at the Mountaineers, 7700 Sand Point Way NE, Seattle, WA 98115. There is a parking lot in front of the Mountaineers and a large side parking lot with plenty. Additional free street parking is on Sand Point Way and around the neighboring blocks.

- For additional information about the Short Course and Spring Seminar contact Sean Philbrick at (sean_philbrick@berkeley.edu)

- To be an **Exhibitor and/or Sponsor** for the Spring Seminar please contact Alec Anderson at (Alec.Anderson@cmc.com).

- To be a **Volunteer** please contact Sean Philbrick at (sean_philbrick@berkeley.edu)

Spring Seminar & Short Course Location

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