

**Symposium Program**  
**52nd U.S. Rock Mechanics / Geomechanics Symposium**  
 17 - 20 June, 2018, Seattle, Washington

Friday, 15 June 2018				
TIME	EVENT			
7:00 am - 6:00 pm	<i>Technical Tour 1</i> Snoqualmie Powerhouse and I-90 Rock Slope Stability Meet in Westin Seattle Lobby			
Saturday, 16 June 2018				
8:00 am - 6:00 pm	<i>Technical Tour 2</i> Whidbey Island Landslides, Lahars, Tsunamis, and Earthquakes Meet in Westin Seattle Lobby			
2:00 pm - 4:00 pm	ARMA Committee on Strategic Planning (By Invitation) Pike Room			
Sunday, 17 June 2018				
7:30 am - 9:00 pm	Registration and Speakers Ready Room <i>Delegate Bags Sponsored by Itasca Consulting Group, Inc.</i>			
8:30 am - 4:45 pm	Workshop Workshop on Characterizing Induced Seismogenic Potential Fifth Avenue Room			
8:30 am - 4:30 pm	<i>Short Course 1</i> Microstructural Modeling of Rock Fracture: Bonded-Particle Modeling with PFC and Bonded-Block Modeling with 3DEC Whidbey Room			
8:30 am - 4:30 pm	<i>Short Course 2</i> 2D and 3D Modeling of Rock Fracturing Processes in Geomechanics Blakely Room			
9:30 am - 3:30 pm	ARMA Board of Directors Meeting Orcas Room			
2:00 pm - 5:00 pm	Exhibit Set Up/Posters Mounted on Display Boards Grand Ballroom			
5:00 pm - 5:30 pm	Meeting of Student Assistants Registration Desk			
6:00 pm - 6:15 pm	Opening Session Grand Ballroom			
6:15 pm - 7:15 pm	10th Annual MTS Lecture H. Sebnem Duzgun, Professor and Fred Banfield Distinguished Endowed Chair in Mining Engineering, Colorado School of Mines			
7:15 pm - 8:30 pm	Opening Reception and Exhibits <i>Lecture and Reception Sponsored by MTS Systems Corporation</i>			
Monday, 18 June 2018				
7:00 am - 6:45 pm	Registration and Speakers Ready Room <i>Delegate Lanyards Sponsored by Rocscience</i>			
7:00 am - 7:50 am	Author's Breakfast Puget Sound Room			
8:00 am - 9:30 am	Track A Fifth Avenue Room	Track B Cascade Ballroom I	Track C Cascade Ballroom II	Track D Elliot Bay
	Technical Session 1	Technical Session 5	Technical Session 9	Technical Session 13
	<i>Geomechanics of Unconventionals</i>	<i>Geotechnical Laboratory and Field Testing</i>	<i>Experimental Studies</i>	<i>Geomechanics in Geothermal Processes</i>
8:30 am - 4:30 pm	Exhibits Open Grand Ballroom			
9:30 am - 12:30 pm	Special Activity Seattle Sights Bus Tour			
9:30 am - 10:00 am	Coffee Break, Exhibits <i>Sponsored by Golder Associates</i>			
10:00 am - 10:50 am	Keynote Address Tony Dell, Engineering Specialist-Geotechnical, SNC Lavalin Grand Ballroom			
11:00 am - 12:30 pm	Track A Fifth Avenue Room	Track B Cascade Ballroom I	Track C Cascade Ballroom II	Track D Elliot Bay
	Technical Session 2	Technical Session 6	Technical Session 10	Technical Session 14
	<i>Hydraulic Fracturing Modeling</i>	<i>General Geomechanics</i>	<i>Advances in the Simulation of Damage and Fracturing Processes in Rocks and Rock Masses I</i>	<i>Seismicity in Mining</i>
12:30 pm - 1:30 pm	Lunch on Your Own			
12:30 pm - 1:30 pm	Lunch Meeting of the ARMA Publications Committee Whidbey Room			
12:30 pm - 1:30 pm	Lunch Meeting of the ARMA Technical Committee on Hydraulic Fracturing Blakely Room			
12:30 pm - 1:30 pm	Meeting of the ASCE Rock Mechanics Committee Vashon Room			
2:00 pm - 3:30 pm	Technical Session 3	Technical Session 7	Technical Session 11	Technical Session 15
	<i>Heavy Oil Geomechanics</i>	<i>New Developments in Geomechanics</i>	<i>Advances in the Simulation of Damage and Fracturing Processes in Rocks and Rock Masses II</i>	<i>Ground Control in Coal Mining</i>
3:30 pm - 4:30 pm	Technical Poster Session, Exhibits, Coffee Break			
4:30 pm - 6:00 pm	Track A Fifth Avenue Room	Track B Cascade Ballroom I	Track C Cascade Ballroom II	Track D Elliot Bay
	Technical Session 4	Technical Session 8	Technical Session 12	Technical Session 16
	<i>Sanding</i>	<i>Reservoir Geomechanics</i>	<i>Developments in Backfilling Mining Stopes</i>	<i>Induced Seismicity and Microseismic Monitoring</i>
7:00 pm - 9:00 pm	ARMA Fellows Dinner (By Invitation) Burke Room, Rainier Club, 820 Fourth Avenue			

**Symposium Program**  
**52nd U .S. Rock Mechanics / Geomechanics Symposium**  
 17 - 20 June, 2018, Seattle, Washington

Tuesday, 19 June 2018				
TIME	EVENT			
7:00 am - 6:30 pm	<i>Registration and Speakers Ready Room</i>			
7:00 am - 7:50 am	<i>Author's Breakfast</i> Puget Sound Room			
8:00 am - 9:30 am	Track A Fifth Avenue Room	Track B Cascade Ballroom I	Track C Cascade Ballroom II	Track D Elliot Bay
	Technical Session 17	Technical Session 21	Technical Session 25	Technical Session 29
	<i>Casing/Cement/Formation Interactions</i>	<i>Hydraulic Fracturing Experimental</i>	<i>Slope Stability in Mines</i>	<i>Rock Physics and Geophysics for Integrated Geomechanical Characterization</i>
8:30 am - 4:30 pm	<i>Exhibits Open</i> Grand Ballroom			
9:30 am - 10:00 am	<i>Coffee Break, Exhibits</i> <i>Sponsored by Golder Associates</i>			
10:00 am - 10:50 am	<i>2nd ARMA Distinguished Lecture</i> Charles Fairhurst, Professor Emeritus, University of Minnesota Grand Ballroom			
10:30 am - 1:30 pm	<i>Special Activity</i> Guided Food and Historic Walking Tour of Pike Place Market			
11:00 am - 12:30 pm	Technical Session 18	Technical Session 22	Technical Session 26	Technical Session 30
	<i>Salt and Injection Geomechanics</i>	<i>Hydraulic Fracturing Geomechanics I</i>	<i>Slope Stability, Dams and Foundations</i>	<i>Imaging Technologies for Geomechanics</i>
12:30 pm - 2:00 pm	<i>Lunch (on your own)</i>			
12:30 pm - 2:00 pm	<i>Lunch Meeting of the ARMA Future Leaders (By Invitation)</i> Whidbey Room			
2:00 pm - 3:30 pm	Track A Fifth Avenue Room	Track B Cascade Ballroom I	Track C Cascade Ballroom II	Track D Elliot Bay
	Technical Session 19	Technical Session 23	Technical Session 27	Technical Session 31
	<i>Hydraulic Fracturing Geomechanics II</i>	<i>Experimental, Hydrothermal and Biological Rock Mechanics</i>	<i>Mining Case Histories</i>	<i>AE and NDE Techniques for Material and Microcrack Characterization</i>
3:30 pm - 4:30 pm	<i>Technical Poster Session, Exhibits, Coffee Break</i>			
4:30 pm - 6:00 pm	Technical Session 20	Technical Session 24	Technical Session 28	Technical Session 32
	<i>Hydraulic Fracturing Special: Acid and Refrac</i>	<i>Lab Studies: Unconventionals</i>	<i>Case Histories-Civil Engineering Projects</i>	<i>AE for Lab Scale Fracturing Monitoring and Microcrack Detection</i>
7:30 pm - 9:30 pm	<i>ARMA Awards Banquet</i> <i>Sponsored by Agapito Associates, Inc.</i> Grand Ballroom			
Wednesday, 20 June 2018				
7:00 am - 2:00 pm	<i>Registration and Speakers Ready Room</i>			
7:00 am - 7:50 am	<i>Author's Breakfast</i> Puget Sound Room			
8:00 am - 9:30 am	Track A Fifth Avenue Room	Track B Cascade Ballroom I	Track C Cascade Ballroom II	Track D Elliot Bay
	Technical Session 33	Technical Session 37	Technical Session 41	Technical Session 45
	<i>Formation Laboratory Evaluations I</i>	<i>Tunnels and Underground Structures</i>	<i>Wellbore Stability I</i>	<i>Coupled Processes, Fluid-driven Fracture, Caprock Integrity</i>
8:30 am - 4:30 pm	<i>Exhibits Open</i> Grand Ballroom			
9:30 am - 10:00 am	<i>Coffee Break, Exhibits</i> <i>Sponsored by Golder Associates</i>			
10:00 am - 10:50 am	<i>Keynote Address</i> Andrew Bungler, Assistant Professor, University of Pittsburgh Grand Ballroom			
11:00 am - 12:30 pm	Technical Session 34	Technical Session 38	Technical Session 42	Technical Session 46
	<i>Formation Laboratory Evaluations II</i>	<i>Numerical Modeling of Civil Engineering Projects</i>	<i>Wellbore Stability II</i>	<i>Pore-scale, Micro, and Nano Rock Mechanics</i>
12:30 pm - 2:00 pm	<i>Lunch (on your own)</i>			
12:30 pm - 2:00 pm	<i>Lunch Meeting of the Seattle and New York Organizing Committees</i> Whidbey Room			
2:00 pm - 3:30 pm	Technical Session 35	Technical Session 39	Technical Session 43	Technical Session 47
	<i>Formation Stress Evaluations</i>	<i>Numerical Modelling in Geomechanics I</i>	<i>Drilling General and Bit Geomechanics</i>	<i>CO2 and CBM Geomechanics</i>
3:30 pm - 4:30 pm	<i>Technical Poster Session, Coffee Break, Exhibits</i>			
4:30 pm - 6:00 pm	Technical Session 36	Technical Session 40	Technical Session 44	Technical Session 48
	<i>Hydraulic Fracturing Stress Evaluations</i>	<i>Numerical Modelling in Geomechanics II</i>	<i>Ground Control in Hard Rock Mining</i>	<i>Injection Geomechanics</i>
6:00 pm - 6:15 pm	<i>Closing Session</i> Grand Ballroom			