

Symposium Overview:

This is the fourth quadrennial international symposium organized under the auspices of Technical Committee 105 (Geo-Mechanics from Micro to Macro) of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE). The preceding symposia were held at Yamaguchi University, Japan in 2006, Tongji University, China in 2010 and Cambridge University, England in 2014. As with these previous events, this symposium seeks to advance the objectives of TC 105 to: promote co-operation and exchange of information about the behavior of soil grains and granular interactions; promote improved modeling of soil aggregates; encourage a micro-structural understanding of significant macroscopic behavior; facilitate discussion on the use of micro-structural measurements to enhance soil characterization procedures; and clarify the selection and use of continuum parameters in geotechnical engineering practice.

Important Dates:

Abstracts due – February 2, 2018
Full papers invited – February 16, 2018
Draft Full Papers due – May 4, 2018
Paper reviews returned – May 25, 2018
Final full papers due – June 29, 2018
IS-Atlanta 2018 - September 9 to 12, 2018
B2G Symposium – September 12 to 13, 2018

Symposium Venue:

IS-Atlanta 2018 will be held in the Academy of Medicine on the campus of the Georgia Institute of Technology in Atlanta, Georgia, USA.

Symposium Format:

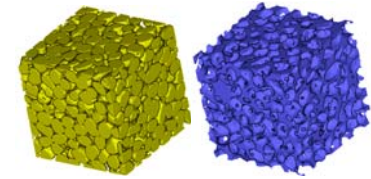
The final technical program will be developed based on topic areas represented by the submitted abstracts. The intent is to have diverse activities including invited keynote lectures, panel discussions and debates, individual presentations of technical papers, a student paper competition, educational technology discussions and hardware/software demonstrations. A continuous poster display will be located in the meeting facility.

Suggested Topics for Papers:

Developments in experimental methods
Advances in numerical methods
Laboratory and field measurements
Interface micromechanics
Particle and pore characterization
Microstructure visualization
Macroscopic behavior
Micromechanics of engineered geo-materials
Innovations in micro geo-mechanics
Thermal effects on micro responses
Damage and healing in geo-materials
Field-scale behavior
Geo-material analytics

Abstract Submission Guidelines:

Interested authors should submit a 200-250 word abstract as an MS Word (i.e. *.docx) attachment in an email to the conference chairperson. The abstract should include the names and affiliations of all authors as well as the email and contact information for the lead author.



CALL FOR PAPERS

IS-Atlanta 2018 Geo-Mechanics from Micro to Macro in Research and Practice

ISSMGE TC105 International Symposium
Academy of Medicine
Georgia Institute of Technology
Atlanta, Georgia, USA

September 9 to 12, 2018



Bulletin #1 & Symposium Website Forthcoming

Separate One-Day Symposium in Print:

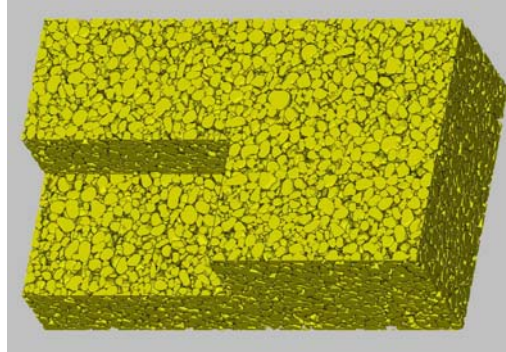
A separate follow-on one-day symposium in print on Bio-inspired and Bio-mediated Geotechnics (B2G) will occur immediately after IS-Atlanta 2018. A reduced rate will be available for IS-Atlanta registrants. See separate Call for Papers.

Symposium Theme:

The theme for the symposium is multi-scale geomechanics. Whether for field characterization, laboratory testing, numerical simulations, data analysis, subsurface process visualization or geotechnical education activities, understanding behavior at multiple scales is playing an ever increasing role in geotechnical research and practice. This symposium seeks to highlight many of the significant developments that have occurred recently. The outcome from the various activities associated with geotechnical engineering listed above frequently complement each other in the development of an overall model of the subsurface and its engineering performance. Accordingly, the role that multi-scale insights can play in integrating these phases and streamlining activities will be emphasized. The symposium also seeks to expand interest in the abundant opportunities that have emerged as a result of developments in areas such as sensors, simulations, big data analytics, and high-performance computing, amongst others. The potential for these developments to contribute to thematic areas such as: coupled hydro-chemo-thermo-bio-mechanical (HCTBM) processes; dissolution and precipitation; interface behavior; repetitive loading; shear and compression localization; fines migration and clogging; and micro-exploration of macro-scale properties is immense. Improved understanding in these topics is key to advancing strategic societal impact areas such as energy efficiency, sustainability and resilience that are driving innovation in research and practice today.

Symposium Proceedings:

All papers submitted to the symposium will be published in a peer-reviewed proceedings. In addition, several Special Journal Issues containing full length extended papers invited by the symposium scientific committee will be published after the symposium.



Symposium Organizing Committee:

Khalid Alshibli (University of Tennessee)
Chloe Arson (Georgia Tech)
Sheng Dai (Georgia Tech)
Matthew Evans (Oregon State University)
Andrew Fuggle (Golder Associates)
Roman Hryciw (University of Michigan)
Haiying Huang (Georgia Tech)
Alejandro Martinez (UC Davis)
Balasingham Muhunthan (Washington State)
Mahdi Roozbahani (Georgia Tech)
Linbing Wang (Virginia Tech)

Symposium Chairperson:

David Frost (Georgia Tech)
Email: david.frost@ce.gatech.edu

International Advisory Committee:

TC105 Chair: Masayuki Hyodo (Japan)
TC105 Vice-Chair: Mingjing Jiang (China)
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Paulus Rahardjo (Indonesia)
Ingrid Tomac (Croatia)
Mehmet Baris Can Ulker (Turkey)
Stefano Utili (Italy)
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Gioacchino Viggiani (France)
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Zhongxuan Yang (China)
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