

## Symposium Cost

Attendees can choose to register for just **IS-Atlanta**, just **B2G-Atlanta** or **both symposia**. Registration includes attendance at all technical sessions, symposium proceedings, morning/afternoon refreshment breaks, lunches, symposium reception/banquet and delegate pack.

Details are summarized below.

### FULL RATES

IS-Atlanta only	\$645
B2G-Atlanta only	\$345
Both IS-Atlanta & B2G	\$890

### STUDENT RATES

IS-Atlanta only	\$445
B2G-Atlanta only	\$295
Both IS-Atlanta & B2G	\$640

**Early registration (before July 6, 2018) discount of \$50 off above rates.**

## Conference Venue

The **Historic Academy of Medicine** was built in 1941 for the Medical Association of Atlanta. The building represented the prominence of the medical profession in the city, as well as the society's determination to provide the finest medical training and education. In 2008 the Academy was gifted to the **Georgia Tech Foundation**. The Academy is on the National Register of Historic Places and boasts beautiful composition and neoclassical architecture. A tribute to the southern reputation of charm and elegance, the facility displays Doric columns, an entry portico, black and white Italian marble floors, and a beautiful rotunda accented by the famous Czechoslovakian chandelier from the movie, "Gone with the Wind."



## Social Event

The social highlight of the IS - Atlanta 2018 symposium will be held at the **Porsche Experience Center** in Atlanta beginning mid-afternoon on Tuesday September 11th. A special lecture, reception and banquet will be held at this state of the art automotive facility where you will be surrounded by some of the most classic and exotic Porsche vehicles ever made. While the cost of this event is part of the symposium registration, providing individual driving experiences or buying you an exotic car is not. We are confident however that you will enjoy learning about and admiring the automotive engineering marvels that will surround you as you relax with colleagues.



# IS - Atlanta 2018

**Geo-Mechanics**  
*from Micro to Macro  
in Research & Practice*

## International Advisory Committee

- **TC105 Chair: Masayuki Hyodo (Japan)**
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  - Matthew Coop (United Kingdom)
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  - Jelke Dijkstra (Sweden)
  - Tuncer Edil (USA)
  - Itai Einav (Australia)
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  - Muzamir Hasan (Malaysia)
  - Ivo Herle (Czech & Slovak Republics)
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  - Rocco Lagioia (Italy)
  - Andreas Loizos (Greece)
  - Dariusz Lydzba (Poland)
  - Samir Maghous (Brazil)
  - Giuseppe Mortara (Italy)
  - David Muir Wood (United Kingdom)
  - Yukio Nakata (Japan)
  - Mark O'Neill (United Kingdom)
  - Rolando Orense (New Zealand)
  - Catherine O'Sullivan (United Kingdom)
  - Sadik Oztoprak (Turkey)
  - Ali Pak (Iran)
  - Achilleas Papadimitriou (Greece)
  - Seong-Wan Park (S. Korea)
  - Antonio Veiga Pinto (Portugal)
  - William Powrie (UK)
  - Paulus Rahardjo (Indonesia)
  - Ingrid Tomac (Croatia)
  - Mehmet Baris Can Ulker (Turkey)
  - Stefano Utili (Italy)
  - Luis Vallejo (United States)
  - Jean-Claude Verbrugge (Belgium)
  - Gioacchino Viggiani (France)
  - J.S. Vinod (Australia)
  - Yu-Hsing Wang (Hong Kong)
  - Mike Winter (UK)
  - Zhongxuan Yang (China)
  - Jidong Zhao (Hong Kong)
- Symposium Chairperson**
- David Frost (Georgia Tech)**  
Email: david.frost@ce.gatech.edu

## ISSMGE TC105 International Symposium - 2 Events

**10 - 12  
September  
2018**

**Academy of Medicine**  
Georgia Institute of Technology  
Atlanta, GA, USA

*IS-Atlanta is followed on Sept. 13 by:*  
**B2G - Atlanta 2018**  
Bio-Mediated & Bio-Inspired Geotechnics



Visit our site online at  
[is-atlanta-2018.gatech.edu](http://is-atlanta-2018.gatech.edu)



# IS-Atlanta

## 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). 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.

## Symposium Organizing Committee

- Khalid Alshibli (U Tennessee)
- Chloe Arson (Georgia Tech)
- Sheng Dai (Georgia Tech)
- Matthew Evans (Oregon State U)
- Andrew Fuggle (Golder Associates)
- Marte Gutierrez (CO School of Mines)
- Roman Hryciw (U Michigan)
- Haiying Huang (Georgia Tech)
- Alejandro Martinez (UC Davis)
- B. Muhunthan (Washington State)
- Soheil Nazarian (UT El Paso)
- Anand Puppala (UT Arlington)
- Mahdi Roozbahani (Georgia Tech)
- Linbing Wang (Virginia Tech)
- Jorge Zornberg (UT Austin)



## 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. 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. These topics are key to advancing strategic societal impact areas such as energy efficiency, sustainability and resilience that are driving innovation in research and practice today.

## 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
- Engineered geo-materials
- Innovations in micro geo-mechanics
- Thermal effects on micro responses
- Damage and healing in geo-materials
- Field-scale behavior
- Field-scale behavior
- Geo-material analytics
- Transportation geodynamics
- Stabilization and reinforcement of geomaterials
- Geomechanics of unsaturated zones

# B2G-Atlanta

## Symposium Overview

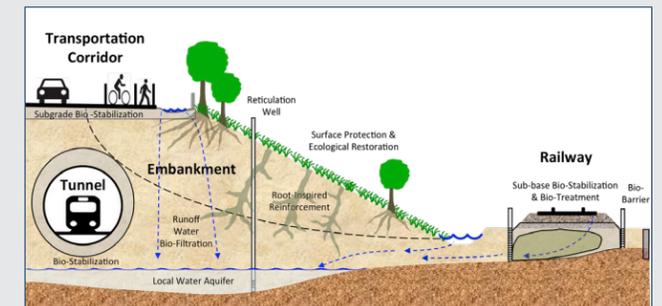
This is the first international symposium in the emerging area of bio-mediated and bio-inspired geotechnics. The symposium seeks to advance the objectives of the US NSF supported Center for Bio-mediated and Bio-inspired Geotechnics (CBBG) and other international agencies and organizations working in this area to: promote co-operation and exchange of information about the emerging field of bio-geotechnics; develop and promote improved modeling of bio-mediated and bio-inspired processes; translate fundamental bio-inspired knowledge into enabling technologies with future commercialization potential; and facilitate the adoption of bio-mediated and bio-inspired solutions into geotechnical engineering practice.

## Symposium Organizing Committee

- Chloe Arson (Georgia Tech)
- Paola Bandini (NMSU)
- Rodrigo Borela (Georgia Tech)
- Susan Burns (Georgia Tech)
- Doug Cortes (NMSU)
- Sheng Dai (Georgia Tech)
- Jason DeJong (UC Davis)
- Mike Gomez (U Washington)
- Greg Hebel (Golder Associates)
- Rosa Krajmalnik-Brown (ASU)
- Seth Mallett (Georgia Tech)
- Claudia Zapata (ASU)
- Katerina Ziotopoulou (UC Davis)

## Suggested Topics for Papers

- Liquefaction mitigation
- Ground improvement
- Process upscaling and validation
- Micro-mechanics of bio-mediated processes
- Denuded landscape restoration
- Fundamental microbial processes
- Groundwater detoxification
- Mitigation of fugitive dust
- Root-inspired anchorage systems
- Annelid-inspired geo-probes
- Self-excavating systems
- Motile sensing systems
- Advances in numerical methods
- Bio-inspired process visualization
- Laboratory and field measurements
- Engineered geo-materials
- Bio-inspired geo-material interfaces
- 3-D printing of analogues and prototypes
- Shallow geo-thermal systems
- Field-scale phenomena
- Bio-geotechnics analytics
- Life-cycle sustainability analysis



Event Information

## 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.

## Hotel Information:

The symposium organizers have reserved a block of rooms at the **Renaissance Atlanta Midtown Hotel** across the street from the Academy of Medicine. A block rate of \$192 per room per night has been secured. The hotel is conveniently located within walking distance to numerous restaurants in midtown Atlanta and is a block from the MARTA midtown station that provides convenient access to both Atlanta Hartsfield-Jackson International Airport as well as other shopping and entertainment venues

## Important Dates:

- Abstracts Last Date – March 9, 2018
- Full Paper Invitations Begin – February 28, 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 10 to 12, 2018
- B2G Symposium – September 13, 2018

## 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.

## 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.

Symposium Schedule

	Monday, Sept. 10	Tuesday, Sept. 11	Wednesday, Sept. 12	Thursday, Sept. 13
8:00am	Welcome			
8:30am				
9:00am	Keynote #1 / 2	Keynote #5 / 6	Parallel #5	CBBG Plenary
9:30am				
10:00am	Coffee	Coffee	Coffee	CBBG Coffee
10:30am				
11:00am	Parallel #1	Parallel #3	Parallel #6	CBBG Plenary
11:30am				
12:00pm	Lunch	Lunch	Lunch	CBBG Lunch
12:30pm				
1:00pm				
1:30pm	Parallel #2	Parallel #4	Keynote #9 / 10	CBBG Plenary
2:00pm				
2:30pm	Coffee	Coffee	Farewell Reception	
3:00pm				
3:30pm	Keynote #3 / 4	Keynote #7 / 8		CBBG Keynote #3 / 4
4:00pm				CBBG Farewell
4:30pm			CBBG Welcome	
5:00pm	Poster Reception	Special IS Lecture	CBBG Keynote #1 / 2	
5:30pm				
6:00pm			CBBG Reception	
6:30pm		Reception & Banquet		
7:00pm				
7:30pm				
8:00pm				