9th Southeast Meeting on Soft Materials  
Monday, May 16th, 2016  
Georgia Tech Scheller College of Business – Room 200  
Breakfast, lunch, and refreshments – Atrium

PROGRAM

8:30 am – 9:00 am  
Registration and breakfast

9:00 am – 9:05 am  
Welcome and opening remarks [Jennifer Curtis]

9:05 am – 10:00 am  
Invited Talk  
William Irvine, University of Chicago, Keynote Speaker  
*The life of vortex knots and the flow of knottiness*

10:00 am – 10:40 am  
Sound Bites I: Fluids and Emulsions [Chair: Alberto Fernandez-Nieves]

10:40 am – 11:00 am  
Coffee and refreshments

11:00 am – 11:50 am  
Invited Talk  
Peter Yunker, Georgia Tech  
*Soft Matter of Life and Death*

11:50 am – 12:35 pm  
Sound Bites II: Physics of Living Systems/ Biophysics [Chair: Dan Goldman]

12:35 pm – 1:45 pm  
Lunch and discussion

1:45 pm – 2:35 pm  
Invited Talk  
Justin Burton, Emory University  
*Echoes from the past: a new take on the low-temperature properties of glasses*
2:35 pm – 3:25 pm
Sound Bites III: Polymers and Interfaces [Chair: Justin Burton]

3:25 pm – 3:55 pm
Coffee and refreshments

3:55 pm – 4:45 pm
Invited Talk
Mark Losego, Georgia Tech
Sub-Nanometer Oxide Coatings for Improved Stability of Molecularly Sensitized Devices

4:45 pm – 5:25 pm
Sound Bites IV: Colloids, Glasses and Jamming [Chair: Jennifer Curtis]

5:25 pm – 5:30 pm
Prizes for top sound bites from each Sound Bite Session.

5:30 pm
Meeting Adjourn

Sound Bites
Session I: Fluids and Emulsions

Justin Pye, Emory University
Fluid dynamics at a solid interface: A slippery slope

Alexandros Fragkopoulos, Georgia Tech
Electrohydrodynamic Instabilities of Toroidal Droplets

Clay Wood, Emory University
Effects of surface properties on evaporating sessile droplets

Heyinn Rho, Georgia Tech
Exploring hierarchy in condensation process

Carlos Orellana, Emory University
Forces acting in quasi 2d emulsions

Andrew Yee, Georgia Tech
Colloidal Particle Assembly in Microchannel Flows

Xiaolei Ma, Emory University
The Origin of Star-shaped Oscillations of Leidenfrost Drops

Maritza Mujica, Georgia Tech
Nanowire Synthesis

Stephen Frazier, Emory University
How to make a giant bubble

Perry Ellis, Georgia Tech
Nematic Materials in Toroidal Geometries

Guga Gogia, Emory University
Emergent Phenomena in Dusty Plasma
**Session II: Physics of Living Systems and Biophysics**

**Perrin Schiebel**, Georgia Tech  
*Snake slithering on the surface of sand*

**Ya-Wen Chang**, Georgia Tech  
*Epithelial Proliferation on Toroidal Hydrogel*

**Michael Tennenbaum**, Georgia Tech  
*Rheology of Active Matter: Fire ants as a model system*

**Jiaqi Zheng**, Emory University  
*Velocity correlation of frictionless crowd*

**Andrea Welsh**, Georgia Tech  
*Pattern Formation of Artemia franciscana*

**Daniel Kovari**, Emory University  
*Using synthetic nucleotide substitution modify the mechanical properties of DNA*

**Patrick Chang**, Georgia Tech  
*Polymer Cushions Under the Cell Decreases the Cell Adhesion Strength*

**Joshua Brockman**, Georgia Tech/Emory BME  
*2D Molecular Force Probes: Taking Tension in New Directions*

**Wenbin Wei**, Georgia Tech  
*Mechanical Length Regulation in a Living Polymer Matrix of Hyaluronan*

**Victor Ma**, Emory University  
*Ratiometric tension probes for mapping receptor forces and clustering at intermembrane junctions*

**Shane Jacobeen**, Georgia Tech  
*Evolving mechanics of nascent multicellular organisms*

**Aaron Blanchard**, Emory University  
*DNA Motors for Molecular Detection*

**Arben Kalziqi**, Georgia Tech  
*The Structure of Killing*

**Session III: Polymers and Interfaces**

**Roman Baglay**, Emory University  
*Local Glass Transition Near Soft and Hard Polymer-Polymer Interfaces*

**Cornelia Rosu**, Georgia Tech  
*Polypeptide-assisted Organization of Semiconducting Polymers*

**Xinru Huang**, Emory University  
*Simultaneous Shifts in Liquid and Glassy Specific Volume with Film Thickness in Supported Polystyrene Films*

**Svetoslav Nikolov**, Georgia Tech  
*Modeling mechanics of microgels near critical point*

**Michael Thees**, Emory University  
*Influence of Ultrahigh Molecular Weight on the Physical Aging of Thin Polystyrene Films*

**Carson Meredith**, Georgia Tech  
*Capillary Foams and Oil-Coated Bubbles*

**Timothy Ibru**, Georgia Tech  
*Challenges and Opportunities in the Fabrication of Elastomer/Metallic Bilayers*
Zachary Mills, Georgia Tech  
Modeling Fouling Layer Formation in EGR Heat Exchangers

Sunghan Kim, Georgia Tech  
Flexural Properties of Ultrastrong Cellulose Nanocrystal-Graphene Nanomembranes

Dmitriy Boyuk, Georgia Tech  
Encoding complex nanoscale structures via semiconductor nanowire synthesis

James Waters, Georgia Tech  
Force distribution looped semiflexible polymers

Michael Dimitriyev, Georgia Tech  
Buckling Instability of Hydrogel Tori

**Session IV: Colloids, Glasses and Jamming**

James Kindt, Emory University  
Ordering transition of hard spheres adsorbed to a spherical surface

Skanda Vivek, Emory University  
Long Wavelength Fluctuations and the Glass Transition in 2D and 3D

Cong Cao, Emory University  
Aging near the wall in 3D colloidal glass

Paul Russo, Georgia Tech  
Air Donuts and Glass Bullets

Keely Criddle, Emory University  
Three-Dimensional Flow through Porous Media

Jonathan Michel, Georgia Tech  
Mechanics of Athermal Random Elastic Networks

Dominic Robe, Emory University  
Aging Dynamic Heterogeneity in an Aging Colloid

Xin Du, Emory University  
Rearrangements during slow compression of a jammed 2-D emulsion

Xun Tang, Georgia Tech  
Optimal Control for Colloidal Self-Assembly

Janna Lowensohn  
Emory University  
How to Deal With Stress by Cracking Up
Parking Directions

Finding the Scheller College of Business is easy.

Scheller College of Business
Technology Square at Georgia Tech
800 West Peachtree St. NW
Atlanta, GA 30308

We are in the same block and building as the campus bookstore, Barnes and Noble, located at the corner of Fifth and Spring streets. The primary entrance faces West Peachtree Street. Proceed to the 2nd floor, room 200.

Parking Options:
1) Visitors Area 6: 5th Street & Spring Street
2) Visitors Area 8: Tech Square & GT Hotel and Conference Center