

2nd Southeast Workshop on Soft Materials and Interfaces

Saturday, October 25, 2008

Emory University – Georgia Institute of Technology

Location: Emory University Campus – Math and Science
Center, Room W201

Program

9:00 am – 9:30 am

Breakfast and Registration – Math and Science Center Atrium

9:30 am – 10:10 am

Invited Speaker

Arjun Yodh, University of Pennsylvania

Melting and Freezing of Colloidal Microgel Crystals and Frustrated Antiferromagnets

10:10 am – 10:50 am

Invited Speaker

Hang Lu, Georgia Tech

Microfluidic Maneuver of Biological Systems - from Molecules to Worms

10:50 am – 11:30 am

Coffee Break

11:30 am – 12:30 pm

Soundbite Session I

Elizabeth Baker, Emory University

What is the Impact of Polymer Backbone Stiffness on Physical Aging in Confined Polymer Films?

Mauricio Bedoya, Georgia Tech

Untangling Hyaluronan-Protein Networks and Function

Daniel Borrero-Echeverry, Georgia Tech

The Collapse of Turbulence in the Flow between Independently Rotating Cylinders

Dandan Chen, Emory University
Shear Induced Structural Relaxation in a Supercooled Colloidal Liquid

Kenneth Desmond, Emory University
Structure of Confined Random Close Packing

David Dunlap, Emory University
AFM Studies of Biopolymer Persistence Lengths

Kazem Edmond, Emory University
Confinement Finds a Length-Scale for the Colloidal Glass Transition

Laura Finzi, Emory University
Single-molecule Biophysics

Venkat Gundabala, Georgia Tech
Co-flow and Electric Fields in Microfluidics

Gary Hunter, Emory University
Influence of Soft and Hard Boundaries on Colloidal Mobility

Eugenia Kharlampieva, Georgia Tech
Silk-containing Free-standing Membranes for Metal Reduction

Vamsi Kodali, Georgia Tech
Understanding Receptor Kinetics and Mechanics in Phagocytosis Uptake using Deformable Polyelectrolyte Microcapsules as Force Sensors

Anthony Kramer, Georgia Tech
Inducing and Quantifying Cell Migration using Microfluidic Devices

Huseyin Kurtuldu, Georgia Tech
The Dimension Reduction of Experimental Data in Complex Systems

Se-Il Lee, Georgia Tech
Inhibition of DNA ejection by Multivalent counterions from Bacteriophages

José Lieter-Santos, Georgia Tech
Phase Behavior of Ionic Microgels

Marcel Lucas, Georgia Tech
Orientation-dependent Friction in Multiwalled Carbon Nanotubes

12:30 pm – 2:00 pm

Lunch

2:00 pm – 2:40 pm

Invited Speaker

Connie Roth, Emory University

Coupled Glass Transition Dynamics Across Polymer-Polymer Interfaces in Ultrathin Multilayer Films of Different Polymers

2:40 pm – 3:40 pm

Soundbite Session II

Jennifer Lynch, Emory University

Dynamics and Structure of an Aging Binary Colloidal Glass

Louis McLane, Georgia Tech

Optical Tweezer Measurements of the Pericellular Coat on Migrating Cells

Ekapop Pairam, Georgia Tech

Stability of Toroidal Droplet

Adam Perkins, Georgia Tech

Probing Dynamics of Spatiotemporally Complex Systems

Justin Pye, Emory University

Testing de Gennes 'Sliding Mode' Picture of Tg Reductions in Free-Standing Polymer Films

Joaquim Clara-Rahola, Emory University

Shear-Induced Dynamics of Polydisperse Jammed Emulsion System

Jan Scrimgeour, Georgia Tech

Optical Assembly of Synthetic Biofilms

Qing Shao, Emory University

Stiffness of DNA Affects Molecular Motor Activity

Meisha Shofner, Georgia Tech

Surface Area Effects in Polymer Nanocomposites

Benjamin Sierra-Martin, Georgia Tech

Osmotic Compressibility Studies of Microgel Particles

Virendra Singh, Georgia Tech

Colloid Particles at Oil-Water Interfaces: Planes vs Droplets

Ashlee St. John, Georgia Tech

Tracking Quantum Dots in Live Cells

Hao Wang, Emory University
Modeling Self-assembly of Binary Mixture of Phospholipids

Haowei Wang, Emory University
Complex DNA-protein interaction study by AFM

Eric Weeks, Emory University
Interfaces between Colloidal Crystals and Colloidal Liquids

Pearl Young, Emory University
Deformed Droplets in Static Two-dimensional Emulsions

Rui Zhang, Georgia Tech
Kinetics of HIV assembly

3:40 pm – 4:20 pm

Coffee Break

4:20 pm – 5:00 pm

Invited Speaker

Valeria Tohver Milam, Georgia Tech
Using Genomically-Relevant Sequences in Double-Stranded Probes