6th Northeast Complex Fluids and Soft Matter Workshop
Friday, January 13th, 2017
Stevens Institute of Technology, Hoboken, NJ

08:15 - 08:55 a.m.  Breakfast and Registration
Babbio Center, Room 122
Registration and poster setup in atrium outside room 122.

08:55 - 09:00 a.m.  Welcome Remarks: Mo Dehghani, Vice Provost of Research

09:00 - 09:30 a.m.  Invited Talk: Pinar Akcora, Stevens Institute of Technology
“Dispersion of ion-containing polymer grafted nanoparticles in ionic liquids”

09:30 - 10:00 a.m.  Invited Talk: Kyle Bishop, Columbia University
“Contact charge electrophoresis for powering colloidal machines”

10:00 - 10:20 a.m.  Coffee Break

10:20 - 11:50 a.m.  Short Presentations I: Experiments

1. Wei Xu, Stevens Institute of Technology.
   “Low-voltage droplet manipulation via tunable wetting on smart polymers”
2. Xiaoyi Hu, Stony Brook University.
   “Destabilization of viscosity stratifications in microfluidic channel: interfacial waves and droplets”
3. Dong Song, Stevens Institute of Technology.
   “A comparison between static de-icing and dynamic anti-icing properties of superhydrophobic surfaces”
4. Lin Lei, Rutgers University.
   “Morphological control of melting gel materials by electrospray”
5. Madhu Majji, City College of New York.
   “Inertial migration in Taylor-Couette flow”
   “Deterministic lateral displacement systems with anchored-liquid obstacles”
   “Swimming in shear-thinning fluids”
8. Tianxing Ma, Rutgers University.
   “Focused laser spike dewetting of metallic thin films”
9. Ivana Seric, New Jersey Institute of Technology
   “Explicit demonstration of the role of Marangoni effect in the breakup of nanoscale liquid filaments”
11:50 - 1:20 p.m.  Lunch and Poster Presentations  
Babbio Atrium

01:20 - 01:50 p.m.  Invited Talk: Shahriar Afkhami, New Jersey Institute of Technology  
“Large scale simulation of forced dewetting”

01:50 - 02:20 p.m.  Invited Talk: Eric Furst, University of Delaware  
“Microrheology for soft materials discovery and characterization”

02:20 - 02:40 p.m.  Coffee Break

02:40 - 03:40 p.m.  Short Presentations II: Theory and Simulations

1. Salman Sohrabi, Lehigh University.  
“Efficient Capture and Release of Cells through a Micro-patterned Surface”

2. Abbas Fakhari, University of Notre Dame.  
“Numerical simulation of partial coalescence cascade”

“Particle aggregation during receptor-mediated endocytosis”

4. Pejman Sanaei, New Jersey Institute of Technology.  
“Modeling Branching Pore Structures in Membrane Filters”

5. Siddhartha Sarkar, Princeton University.  
“Elastic multipole method for describing deformations of 2D solid structures”

6. Tianya Yin, Rutgers University.  
“Molecular dynamics simulation of particle re-entrainment induced by a moving liquid-liquid interface”

03:40 - 04:00 p.m.  Coffee Break

04:00 - 04:30 p.m.  Invited Talk: Joel Koplik, City University of New York  
“Nanoparticles at interfaces”

04:30 - 05:00 p.m.  Invited Talk: Valentina Prigiobbe, Stevens Institute of Technology  
“Nanoparticle-stabilized foam transport in porous media”

Closing Remarks

Friday May 26th  
NCS7 @ Princeton University
Organizers: Howard Stone and Andrej Kosmrlj

PRINCETON UNIVERSITY
List of contributed posters:

1. Jian Xu, Stevens Institute of Technology.
   “Self-cleaning polymer membrane for oil/water separation”

2. Isabel Liberis, Rutgers University.
   “Coalescence of sessile drops”

3. Omer Akabidalkreem, Rutgers University.
   “Experimental study of drying process in particles-stabilized foams”

4. David Cunningham, Rutgers University.
   “Non Darcy flow through self affine rock fractures”

5. Yu Han, Rutgers University.
   “Droplet penetration method as a wettability test for pharmaceutical powders”

   “Thermosensitive polymer tracers for particle image velocimetry”

7. Minglu Li, Rutgers University.
   “Advancing and receding contact angles and wetting dynamics of powders in close columns”

8. Valeria Saro-Cortes, Rutgers University.
   “Parallel photolithographic manufacturing of ionic thrusters for use in small satellites”

9. Qingjian Li, Stevens Institute of Technology.
   “Flow behavior of nanoparticle-stabilized foam in porous media”

    “Flow physics induced by zebrafish swimming in a water channel”

11. Zhanjie Liu, Rutgers University.
    “A novel method to measure the dynamic contact angle between liquid and powders”

12. Chongfeng Zhang, Stevens Institute of Technology.
    “Evaporation controlled particle patterns in a polymer droplet”

Sponsors:

We would like to acknowledge support from the Mechanical Engineering department at Stevens Institute of Technology.

-The local organizing committee
Pinar Akcora
Chang-Hwan Choi
Kevin Connington
Valentina Prigiobbe