

Complex Fluids Design Consortium Annual Meeting

Monday, February 1, 2016

Materials Research Laboratory, Room 2053
University of California, Santa Barbara

- 9:00-9:30 am *CFDC: Welcome and update*
Professor Glenn Fredrickson, Director CFDC, Chemical
Engineering and Materials, UCSB
- 9:30-9:45 am *CFDC software update: PolyFTS*
Dr. Kris Delaney, MRL, UCSB
- 9:45-10:15 am *Multiscale simulation methods for hybrid molecular-continuum
problems*
Professor Scott Shell, Chemical Engineering, UCSB
- 10:15-10:45 am Coffee Break 1
- 10:45-11:15 am *Multi-fluid models of polymeric liquids*
Dr. Doug Tree, MRL, UCSB
- 11:15-11:45 am *Block copolymer self-assembly and polymer-mediated colloid
interaction*
Dr. Wei Li, MRL, UCSB
- 11:45- 12:00 pm *Selective stabilization of diblock copolymer network phases in an
applied electric field*
Jonathan Martin, Chemical Engineering and MRL, UCSB
- 12:00-1:00 pm Lunch on MRL 3rd Floor Patio
- 1:00-1:30 pm *MD simulations of ion dynamics in ionomer melts*
Dr. Amalie Frischknecht, Sandia National Laboratories
- 1:30-2:00 pm *Density functional model for fluctuating polymer solutions: Partial
saddle point approximation approach*
Dr. Yi-Xin Liu, Fudan University and MRL, UCSB

- 2:00-2:30 pm *Optimized phase field models for faster simulations of directed self-assembly*
Jimmy Liu, Chemical Engineering and MRL, UCSB
- 2:30-3:00 pm *Unguided discovery of BCP self-assembly: Challenges and outlook*
Carol Tsai, Chemistry & Biochemistry and MRL, UCSB
- 3:00-3:15 pm Coffee Break 2
- 3:15-3:45 pm *Coupling of isotropic and directional interactions in patchy particles*
Dr. Debra Audus, NIST
- 3:45-4:15 pm *Pressure-velocity coupling in the computational fluid dynamics of polymer solutions*
Yassine Dhane, Chemical Engineering, UCSB
- 4:15-4:45 pm *Flow induced demixing in polymer solutions*
Joe Peterson, Chemical Engineering, UCSB
- 4:45-5:00 pm Coffee Break 3
- 5:00-5:30 pm *Defectivity in multi-VIA DSA systems with chemopatterned substrates*
Corinne Carpenter, Chemical Engineering and MRL, UCSB
- 5:30-6:00 pm *Using particle swarm optimization for bulk phase discovery in block copolymer formulations*
Dr. Mihir Khadilkar, MRL, UCSB
- 6:00 pm Adjourn CFDC meeting

CFDC Dinner – 6:30 pm, Flavor of India