Complex Fluids Design Consortium Annual Meeting

Monday, February 1, 2021

Materials Research Laboratory
University of California, Santa Barbara

All Meeting Times are US Pacific Time (California)

Morning Session

10:00-10:15 am	*CFDC: Welcome and update* Professor Glenn Fredrickson, Director CFDC, Chemical Engineering and Materials, UCSB
10:15-10:30 am	*CFDC software update* Dr. Kris Delaney, MRL, UCSB
10:30-10:45 am	*Interfacial reaction-induced roughening in polymer blends* Dr. Raj Sengupta, MRL, UCSB
10:45-11:00 am	*Towards de novo field theoretic prediction of self assembly: charges and surfactants* Dr. Kevin Shen, MRL, UCSB
11:00-11:15 am	*Prediction of polyelectrolyte complex coacervation by bridging atomistic and field theoretic models* My Nguyen, MRL, UCSB
11:15-11:30 am	*Molecularly-informed field theories from systematic bottom-up coarse-graining: A multiscale approach to complex polymeric solutions* Nicholas Sherck, Chemical Engineering and MRL, UCSB
11:30-11:45 am	*The effects of hydrophilic and hydrophobic interactions on intrinsically disordered proteins LLPS in explicit water solution* Dr. Saeed Najafi, Chemistry & Biochemistry, UCSB
11:45-12:00 pm	*The superionic conductivity mechanism in solvent-free polymer electrolytes* Seamus Jones, Chemical Engineering and MRL, UCSB

Afternoon Session

1:00-1:15 pm	*Electrostatic manipulation of phase behavior in immiscible charged polymer blends* Dr. Doug Grzetic, MRL, UCSB
1:15-1:30 pm	*Quantitative comparison of field update algorithms for SCFT and FTS* Daniel Vigil, Chemical Engineering and MRL, UCSB
1:30-1:45 pm	*Field-theoretical simulation of vortices in Bose-Einstein condensates* Kimberlee Keithley, Chemical Engineering and MRL, UCSB
1:45-2:00 pm	*Melt self-assembly of bottlebrush copolymers* Tim Quah, Chemical Engineering and MRL, UCSB
2:00-2:15 pm	*Architecture effects in complex assemblies of block and star copolymers* Dr. Duyu Chen, MRL, UCSB
2:15-2:30 pm	*The effect of pore morphology on solute diffusion in triblock copolymer membranes* Anthony Cooper, Physics and MRL, UCSB
2:30-2:45 pm	*Stabilizing close-packed sphere phases in triblock copolymer melts via dispersity* Dan Sun, Chemistry and MRL, UCSB
2:45-3:00 pm	*Multiscale modeling of viscosity index improver polymers* Charles Li, Chemical Engineering and MRL, UCSB
3:00-3:15 pm	*Free-energy methods in field-theoretic simulations* Dr. Kris Delaney, MRL, UCSB
3:15-3:25 pm	Wrap-up, adjourn CFDC Meeting