

Statistical Mechanics of Soft Matter 2019 – Program

Mon, 16 Dec 19

08:00 08:50 Registration

08:50 09:00 Welcome

| | | | | | |
|--------------|--------------|-----------------------|---------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 09:00 | 09:20 | Debra | Bernhardt (Searles) | University of Queensland | Irreversibility for arbitrary protocols - fluctuation theorems as a sufficient but not necessary condition |
| 09:20 | 09:40 | Michael | Grünwald | University of Utah | Crystallization and spontaneous resolution of chiral molecules |
| 09:40 | 10:00 | Nathan | Clisby | Swinburne University of Technology | Universal properties of polymer melts from high resolution Monte Carlo simulations of Hamiltonian paths |
| 10:00 | 10:20 | Dominic | Robe | Monash University | Physical aging in a colloidal glass as transitions between metastable states |
| 10:20 | 11:00 | Morning tea | | | |
| 11:00 | 11:20 | Peter | Harrowell | University of Sydney | How useful is structure in amorphous materials? |
| 11:20 | 11:40 | Tony | Roberts | University of Adelaide | Multiscale computation of microscale systems |
| 11:40 | 12:00 | Charlotte | Petersen | University of Innsbruck | Understanding confined liquids: confinement by periodic boundaries |
| 12:00 | 12:20 | Gary | Bryant | RMIT University | Understanding dynamics in complex suspensions using light scattering and differential dynamic microscopy |
| 12:20 | 14:00 | Lunch | | | |
| 14:00 | 14:10 | Kannan | Ridings | The University of Auckland | Nanowire stability during solid-liquid phase coexistence |
| 14:10 | 14:20 | Matthew | King | Griffith University | Fluctuations in a polygonal channel billiards model |
| 14:20 | 14:30 | Huong Thi Lan | Nguyen | University of Adelaide | Coarse-graining of anisotropic molecules for simplified and fast molecular dynamic simulations |
| 14:30 | 14:40 | Jared | Wood | University of Sydney | The behavior of nanorod assemblies, examined with biased sampling methods |
| 14:40 | 14:50 | Luca | Maffioli | Swinburne University of Technology | Three-body entropy computation for an atomic fluid |
| 14:50 | 15:00 | Patrick | Bowe | University of Adelaide | Modelling carbon nanotube cap formation via carbon vapour deposition |
| 15:00 | 15:40 | Afternoon tea | | | |
| 15:40 | 16:00 | Peter | Daivis | RMIT University | Energy flow in thermostatted nonequilibrium molecular dynamics simulations |
| 16:00 | 16:20 | Asaph | Widmer-Cooper | University of Sydney | Twisting of nano-platelets: a tale of stress and strain |
| 16:20 | 16:40 | Andreas | Menzel | University of Dusseldorf | Statistical characterization of the collective behaviour in active suspensions of self-propelled microswimmers |
| 16:40 | 17:00 | Mirella | Simoes Santos | University of Queensland | Local self-diffusion coefficients of confined fluids through local dissipation theorem |
| 17:00 | 18:30 | Poster session | | | |
| | | Belinda | Boehm | University of Adelaide | Understanding solution-phase aggregation of organic semiconductors |
| | | Isaac | Pincus | Monash University | Viscometric functions and rheo-optical properties of dilute polymer solutions: comparison of FENE-Fraenkel dumbbells with rodlike models |
| | | Madhuranga | Rathnayake | University of Sydney | Evaluating classical force fields to study dissolution and crystallisation of hybrid organometallic halide perovskites |
| | | Michael | Rinaudo | University of Sydney | Packing and phase behaviour of nanorods |
| | | Aritra | Santra | Monash University | Universal behaviour of associative polymer solutions |
| | | Gerd | Schröder-Turk | Murdoch University | Morphometry.org: Minkowski functionals: robust and versatile shape descriptors |
| | | Zakiya | Shireen | University of Melbourne | Modeling and simulation of aggregation of binary colloids |
| | | Sleebe | Varghese | Swinburne University of Technology | Effect of hydrogen bonds on the dielectric properties of interfacial water |

19:00 Dinner

Tue, 17 Dec 19

| | | | | |
|--------------|------------------------------|-------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 09:00 | 09:20 Billy | Todd | Swinburne University of Technology | Heat flux beyond Fourier's law |
| 09:20 | 09:40 Ellie | Hajizadeh | University of Melbourne | Multiscale simulations of polymer-bridged colloidal latex particle suspensions |
| 09:40 | 10:00 Gang | Sun | University of Sydney | Structure-dynamics connection in glass forming liquids |
| 10:00 | 10:20 Chris | Bradly | University of Melbourne | Phase boundaries and universality in solvent-dependent polymer adsorption |
| 10:20 | 11:00 Morning tea | | | |
| 11:00 | 11:20 Richard | Sadus | Swinburne University of Technology | Ab initio potentials in molecular simulation |
| 11:20 | 11:40 Yawei | Liu | University of Sydney | Dynamic simulations of rod-shaped colloidal particles: phase behaviour, self-assembly, diffusion and electrophoresis |
| 11:40 | 12:00 Barry | Cox | University of Adelaide | Graphene wrinkles |
| 12:00 | 12:20 Ravi | Jagadeeshan | Monash University | Internal friction can be measured with the Jarzynski equality |
| 12:20 | 14:00 Lunch | | | |
| 14:00 | 14:10 Tobias | Hain | Murdoch University | Thermodynamics of the quantizer problem: the Voronoi liquid |
| 14:10 | 14:20 Debora | Monego | University of Sydney | Size-dependent sedimentation of nanocrystals: the role the ligand shell structure |
| 14:20 | 14:30 Jabr | Aljedani | University of Adelaide | Variational model of a rippled graphene sheet |
| 14:30 | 14:40 Sobin | Alosious | Swinburne University of Technology | Prediction of Kapitza length at solid-fluid interfaces. |
| 14:40 | 14:50 Rahil | Valani | Monash University | Superwalking droplets |
| 14:50 | 15:30 Afternoon tea | | | |
| 15:30 | 15:50 Kirill | Glavatskiy | University of Sydney | Interfacially driven transport theory: a way to unify Marangoni and osmotic flows |
| 15:50 | 16:30 Hartmut | Löwen | University of Dusseldorf | Active particles near substrates: from biofilms to colloids in motility patterns |
| 16:30 | 16:40 Closing remarks | | | |