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 La	Nguyen	University of Adelaide	Coarse-graining of anisotropic molecules for simplified and fast molecular dynamic simulations
14:30	14:40	Jared	Wood	Univerisity 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
		Nicolas	de Souza	ANSTO	Soft matter from neutron backscattering spectroscopy at ACNS
		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
		Sleeba	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**			