Statistical Mechanics of Soft Matter (SM)^2 Conference draft program				
Date: Wednesday Dec 3 - Friday Dec 5, 2025				
Location: RMIT City Campus, Building 80, Level 1, Room 2 (Rm 80.01.002)				
Wednesday				
Start time	**Duration/min**	**Event**	**Presenter**	**Title**
10:00	10	Opening remarks	Peter Daivis	
10:10	75	Talk 1 & Discussion	Tu Le	Machine learning for functional materials
11:25	30	Morning tea		
11:55	75	Talk 2 & Discussion	Benjamin Dalton	Reaction coordinates and memory kernels: the basis of coarse-grained dynamic protein folding models
13:10	60	Lunch		
14:10	75	Talk 3 & Discussion	Brendan Dyett	The preparation and characterisation of lipid nanoparticles for drug delivery applications
15:25	30	Afternoon tea		
15:55	75	Talk 4 & Discussion	Saffron Bryant	Cryopreservation: How different soft matter states can influence biological survival at very low temperatures
Thursday				
Start time	**Duration/min**	**Event**	**Presenter**	**Title**
9:00	10	Opening remarks		
9:10	20	Talk 1	Karl Travis	High pressure closure of melting and freezing behaviour
9:30	20	Talk 2	Sunil Kumar	Transitions in a confined system of soft self-propelled particles
9:50	20	Talk 3	Kirill Glavatskiy	Thermodynamics of ultra-fast processes
10:10	20	Talk 4	Carmelo Riccardo Civello	Bridging Experiment and Simulation: Direct Comparison of Boundary Slip at Matched Shear Rates Using TTCF-Enhanced NEMD
10:30	30	Morning tea		
11:00	20	Talk 5	Billy Todd	Flow symmetry and slip dependence on the approach to steady-state for boundary driven flows
11:20	20	Talk 6	Kannan Ridings	Self-assembly and transition mechanisms of trimer- triblock Janus particles interacting in a Lennard-Jones fluid
11:40	20	Talk 7	Benjamin Dalton	Solvent–Solute Interplay and the Dynamics of Complex Liquids
12:00	20	Talk 8	Mung Suan Pau Duhlian	Phase Field Simulation of Stick-Slip Flow Incorporating Shear Melting and Wall Slip
12:20	90	Lunch & digital posters		
13:50	20	Talk 9	Rishabh More	To roll or not to roll - the yield stress in dilute soft particulate gels
14:10	20	Talk 10	Holly Baldock	Revisiting the access conductance of a nanopore in a charged membrane
14:30	20	Talk 11	Jordan Hill	Quantitative phase field modelling of planar ice growth in saccharide solutions
14:50	20	Talk 12	Pratyasha Bhardwaj	Multiscale Modeling to Study Morphology Evolution in Polymer nanocomposites
15:10	30	Afternoon tea		
15:40	20	Talk 13	Gerd Schroeder-Turk	Like the Gyroid, but nowhere near as favourable: Amorphous minimal surface sponges
16:00	20	Talk 14	Matteo Baggioli	Topological and geometrical nature of plastic rearrangements in amorphous solids
16:20	20	Talk 15	Caius Robertson	Field Independent Transient Time Correlation Function: Increasing Efficiency In Predicting Properties of Fluid Flow Systems In The Linear Regime
16:40	20	Talk 16	Bill van Megen	PHONONS, DEGENERACY AND STRETCHING OF TIME CORRELATION FUNCTIONS OF SUSPENSIONS
17:00	30	Digital posters		
17:30	80	Free time		
18:50		Dinner		
Friday				
Start time	**Duration/min**		**Presenter**	**Title**
9:00	10	Opening remarks		
9:10	20	Talk 17	Ravi Jagadeeshan	Linear Viscoelasticity of Dilute Solutions of Semiflexible Polymers
9:30	20	Talk 18	Christopher Bolton	Non-equilibrium interfacial diffusion of anisotropic colloids
9:50	20	Talk 19	Asaph Widmer-Cooper	How Ligand Structure affects the Colloidal Stability of Apolar Nanoparticles
10:10	20	Talk 20	Huyen Pham	Local Atomic Re-arrangements in Shear-Bands of Deformed Metallic Glasses via Nano-Diffraction

10:30	30	Morning tea		
11:00	20	Talk 21	Chris Bradly	Lattice polymers subject to a force
11:20	20	Talk 22	Gary Bryant	Characterisation of non-spherical particles in suspension using scattering techniques
11:40	20	Talk 23	Ellie Hajizadeh	Defeating Superbugs: Molecular Dynamics Insight into Mode of Action of SNAPPs
12:00	20	Talk 24	Nick Dashti	From Flow to Rigidity: Percolation in Sheared Granular Media
12:20	90	Lunch & digital posters		
13:50	20	Talk 25	Peter Harrowell	Macroscopic Boundary Conditions from Microscopic Coupling: Flow in the Confined Rough Sphere Fluid
14:10	20	Talk 26	Ehsan Kamali Ahangar	Shear-dependent structure and rheology of multi-chain block copolymer systems
14:30	20	Talk 27	Andrew Martin	The pair-angle distribution function: a sensitive measure of amorphous or disordered structures
14:50	20	Talk 28	Michael Hassett	Molecular Dynamics simulations of discotic liquid crystal HOOT for pair-angle distribution function (PADF) comparison
15:10	30	Afternoon tea		
15:40	20	Talk 29	Stephen Sanderson	Sllod: a can of worms
16:00	20	Talk 30	Ibrahim Al Azki	Investigating the role of network topology in the dynamics and performance of reservoir computing systems
16:20	10	Concluding remarks		
16:30		Finish		
Digital posters				
		Digital Poster 1	Sreehari Batni Ravindranath	Non-coordinating co-solvents enhances performance of salt-concentrated Ionic Liquid Electrolytes
		Digital Poster 2	Amelia Liu	Characterising plastic defects in a glass with a Burgers vector measurement from scanning small-beam diffraction
		Digital Poster 3	Mathushan Sathiyamoorthy	Molecular Dynamics Study of Glass Formation in Au-based Metallic Nanoparticles
		Digital Poster 4	Jake Willett	A Molecular Dynamics Study on the Curing Behaviour of Dental Resin Mixtures
		Digital Poster 5	Nicolas de Souza	QENS at ANSTO : Opportunities for probing equilibrium fluctuations at the nanoscale