Wednesday 11 February (morning session)

8:40 – 9:40	**Plenary talk : Matthew Tam** Distributed Convex Optimisation *Chair : Peter Taylor*				
	Room 1 and 2 *Chair :* *Adelle Coster*	**Room 3** *Chair:* *Tony Roberts*	**Room 4** *Chair:* *Elise Mills*	**Room 5** *Chair :* *Richard Creswell*	**Room 6** *Chair :* *Brendan Florio*
9:40 – 10:00	**Kota Nishi*** Habituation Mechanism in the True Slime Mold via a Spatially Discretized Reaction–Diffusion Model	**Kajanthan Shiyama-suntharam*** Efficient Pricing of American Bond Options under CIR Stochastic Volatility via Coordinate Transformation	**Anuradha Dhananjanie Priyadarshana Alankara Dewage*** Assessing the sensitivity of explainable AI for marine ecology	**Bhavya Srivastava*** Modelling the Impact of Bedaquiline-Based Treatment Regimens on Tuberculosis Drug Resistance	**Celia Dowling*** Exploring how population heterogeneity improves collective navigation performance towards a moving target
10:00 – 10:20	**Michael Pan** Mathematical approaches for refining metabolic maps of *Leishmania* parasites	**Dhruv Goel*** Impact of Liquidity Risk in Portfolio Selection: A New Approach	**Amanda Salpadoru*** Parameter estimation and identifiability analysis of stability and tipping points in lake ecosystems	**Yilei Huang*** How Does Short-Term Broad Immunity Influence Antigenic Evolutionary Dynamics in Influenza?	**Cooper Maher*** Modelling the population dynamics of arbovirus vector Culex Annulirostris in southeastern Australia
10:20 – 10:40	**Alys Rachel Clark** Mathematical models of whole placenta nutrient transfer, structure versus transport properties	**Hritika Gupta** Regime-switching stochastic models for temperature forecasting and weather derivative pricing	**Jordan Holdorf*** Optimising Restoration Portfolios Through Spatial Heterogeneity and Climate Risk	**Weisheng Wang*** Canine Ehrlichiosis in Northern Australia: A Sensitivity and Elasticity Analysis of R0	**Jinghao Chen** Modeling heterogeneous PIEZO1 activity in collective keratinocyte migration
10:40 – 11:00	**Brock Sherlock*** A Surrogate Model for Efficient Inference of GLUT4 Translocation	**Michael Groom** EON: Entropy-optimal networks	**Matthew Adams** Simulating ecosystem networks of large size: Current approaches and future challenges	**Stephen Davis** Mathematical models of tick-borne pathogens and the unique contact patterns of ticks	**Joshua Forrest** Chemokine Combinations in Macrophage Chemotaxis
11:00 – 11:20	**Morning tea - Grand Ballroom**				

Wednesday 11 February (morning session continued)

	Room 1 and 2 *Chair: David Warne*	Room 3 *Chair: Maria Kleshnina*	Room 4 *Chair: Judy Bunder*	Room 5 *Chair: Sergey Suslov*	Room 6 *Chair: Alex Browning*
11:20 – 11:40	**Catherine Hassell Sweatman** Applications of a model of type 2 diabetes	**David Stanford** Non-preemptive Priority Queues with Distinct Customer Selection Rules	**Bakhodirzhon Siddikov** Application of the Approximation Theory in the Field of Magnetic Refrigeration	**Caitlin Anchor*** Two-dimensional topography estimation from noisy free surface data	**Lata Paea*** Exploring the Dynamics of Uterine Smooth Muscle Fibre Contraction Using Agent-Based Modelling.
11:40 – 12:00	**Catheryn Gray** Mathematical Modelling of Porin-Mediated Glucose Transport in *Klebsiella pneumoniae*	**Chathurika Srimali Gunasekara Ekanayaka Mudiyanselage*** Optimizing Two Consecutive Shutdown Maintenance Scheduling with Endogenous Uncertainty	**Tess O'Brien** Hunting Dragons: non-unique parameter estimates arise from numerical error in longitudinal models	**Elizabeth Jagerma*** Computation of Three Dimensional Free Surface Flow Inverse Problems Using Boundary Integrals	**Liuhao Yu*** Modelling trophoblast bilayer turnover: an agent-based modelling approach
12:00 – 12:20	**Dietmar Oelz** Mechanochemical Axis Formation in Hydra Spheroids	**Nataliya Togobytska** Modelling and Optimisation of Melt Pool Geometry in Metal Additive Manufacturing	**Alexander Labovsky** Recursive Correction in Fluid Flow Modeling	**Xinyi Yang*** Resolving two-body hydrodynamic interactions between microswimmers	**Lyndon Koens** Quantitative methods for motion trace fossils
12:20 – 12:40	**Faith Sawers*** Modelling Initial Calcification in Atherosclerosis	**Ryo Fujie** Controlling between-group payoff differences with zero-determinant strategies	**Elizabeth Harris** Improvement on the Worst-Case Runtime for Calculating Minimum Volume Covering Ellipsoids	**Mike Meylan** Linear Wave Scattering by a Beach	**Matthew Mack*** Two Acts in One: The Actin Model That Couldn't, And The One That...Could?
12:40 – 13:00	**Haruka Suga*** A Simplified Mathematical Model for Estimating Stenosis Treatment Time in Catheter Procedures		**Nawal Alsubaie*** Three points inequalities for Riemann-Stieltjes integral of Lipschitzian or bounded variation integrands and integrators of r-Hölder type with applications	**Andreas Heinecke** Duality for frames - and application to MRA wavelet construction	**Muhammad Asim Farooq*** Modelling interclonal cooperation in epithelial carcinogenesis using spatial models
13:00 – 14:00	**Lunch - Grand Ballroom**				

Wednesday 11 February (afternoon session)

14:00 – 15:00	**Plenary talk : Kavita Ramanan** Understanding high-dimensional stochastic dynamics on realistic networks *Chair : Ilze Ziedins*
15:00 – 15:30	**Afternoon tea - Grand Ballroom**
15:30 – 16:30	**Plenary talk : Natalie Thamwattana** Clogging in granular assembly when treating acidic groundwater *Chair : Scott McCue*
16:30 – 17:00	**Panel discussion - what do employers want in an applied mathematics graduate?** Alex Kalliotis (DSTG), Trudy Green (eWater), Mahdi Parsa (DAFF), Jennifer Flegg (University of Melbourne)
18:30 – 21:30	**Conference dinner - Room 1 and 2**
21:30 – 22:30	**Conference dinner continues - Howling Moon, level 6**