

Wednesday morning <small>*student talk ^JJSIAM/ANZIAMI collaboration</small>					
9:00–9:50	Invited talk: Nataraj, Neela A unified framework for lowest-order FEM for fourth-order plates (p24) <i>Chair: Brendan Harding</i>				
	Upper North <i>Chair: Ben Binder</i>	Upper South <i>Chair: Matthew Holden</i>	Lakeview <i>Chair: Larry Forbes</i>	Business Centre <i>Chair: Tony J. Roberts</i>	Summit Centre <i>Chair: Michael Haythorpe</i>
10:00–10:20	Buenzli, Pascal Solving hard reaction–diffusion PDEs with simple discrete models (p49)	Zarebski, Alexander Deep learning for genetic epidemiology (p129)	Huppert, Herbert Chemical gardens: the origin of life? (p71)	Aldosri, Afnan* Mode matching analysis of the two-dimensional waveguides (p41)	Boyle, Laura Simulation modelling of the delayed discharge problem in hospitals (p48)
10:20–10:40	Tam, Alex Though the yeasty waves confound (p118)	Eales, Oliver The effect of antigenic seniority on the timescales of influenza infection risk following vaccination (p56)	Iqbal, Tasawar* Hydrodynamics of filter feeders (p72)	Bunder, Judy Boundary conditions with macroscale equation-free modelling (p50)	Wu, David Temporal trends of hospital transfer networks in Victoria for controlling the spread of antibiotic resistance (p126)
10:40–11:00	Netherwood, Daniel A model for accidental and regulated cell death during the expansion of yeast biofilms (p97)	Pooladvand, Pantea How cultural innovations trigger the emergence of new pathogens (p105)	Harding, Brendan Fluid flow through an involute spiral (p65)	Soenjaya, Agus* Finite element methods for some micromagnetic models at elevated temperature (p114)	Gupta, Hritika* Transient waiting time distributions in call centres with skills-based routing (p64)
11:00–11:20	Morning tea on The Deck				

Wednesday morning (continued)					
	*student talk		[†] JSIAM/ANZIAM collaboration		
	Upper North <i>Chair: Mat Simpson</i>	Upper South <i>Chair: M. Lydeamore</i>	Lakeview <i>Chair: Audrey Pototsky</i>	Business Centre <i>Chair: N. Thamwattana</i>	Summit Centre <i>Chair: David Skene</i>
11:20–11:40	Neufeld, Zoltan Travelling wave model of competitive cell invasion (p98)	Sherlock, Brock* A closed queuing model for GLUT4 dynamics: an exploration of mechanisms (p112)	Cockerill, Madeleine* A Boussinesq model of a non-spherical bubble with a magnetic field (p53)	Mitchell, Lewis Complex systems and networks approaches to modelling atrial fibrillation (p93)	Burdett, Ryan* An effective heuristic approach for the domination problem and its variants (p50)
11:40–12:00	Alsubaie, Faris* The effect of cell motility on competitive invasion of epithelial monolayers (p57)	Tobin, Ruairi* Compartmental models of infectious disease dynamics with correlates of immunity (p121)	Nisar, Muhammad* Absolute and convective instability of a radial jet with swirl (p99)	Baeumer, Boris Super-diffusive approximations of solutions to non-linear stochastic PDEs (p44)	de Jong van Lier, Matias* Topological smoothing of a signal over a planar graph (p54)
12:00–12:20	Marriott, Rory* Mathematical modelling of solute pathways and residence in human stratum corneum (p88)	Morris, Dylan* Computation of random time-shift distributions for stochastic population models (p94)	Hinton, Edward Starting vortices generated at the sharp edges of an arbitrary body (p68)	Shahriari, Zahra* Ordinal Poincaré sections: reconstructing the first return map from an ordinal segmentation of time series (p111)	Cesana, Pierluigi Fully automatized optimization of ring-opening reactions in lactone derivatives via 2-step machine learning (p51)
12:20–12:40	Khodabakhsh, Neda* Mathematical model of corneal epithelial cell behaviour (p77)	Claassen, Daniel* Statistical Finite Element Modelling for misspecified SST simulation and inversion (p52)	Suslov, Sergey Hierarchy of catastrophes in swirling electrolyte (p117)	Tzou, Justin Lévy flight versus Brownian search strategies (p121)	Nakano, Naoto[†] Path integral approach to universal dynamics of reservoir computers (p96)
12:40–1:00	Khatun, Mst Shanta* Voronoi cell-based model of epithelial carcinogenesis evolution (p77)	Germano, Domenic Jump-Switch-Flow: hybrid deterministic-stochastic trajectories of compartmental systems (p61)	Wichmann, Joern Approximation of stochastic fluid models (p125)	Taylor, Steve Velocity jump process with volume exclusions in a narrow channel (p120)	Qureshi, Naik Bakht Sania* Utilising machine learning to predict zoonotic spillover risk (p106)
1:00–2:00	Lunch on The Deck				

Wednesday afternoon <small>*student talk ^JJSIAM/ANZIAM collaboration</small>					
2:00–2:50	Invited talk: Lustri, Chris Stokes' phenomenon and numerical analytic continuation (p23) <i>Chair: Nalini Joshi</i>				
	Upper North <i>Chair: Rebecca Chisholm</i>	Upper South <i>Chair: Cody Nitschke</i>	Lakeview <i>Chair: Joern Wichmann</i>	Business Centre <i>Chair: Hoa Bui</i>	Summit Centre <i>Chair: Jody McKerral</i>
3:00–3:20	Weatherley, Georgia* Tackling the erosion of neurological function: can we restore functional deficits in multiple sclerosis patients? (p123)	Le, Anthia* Grandmother care and the origin of menopause (p82)	Michalski, Hugh* The effect of bump height and length on the free-surface in open channel flows (p91)	Taylor, Peter Using random walks for inference on networks (p119)	Skene, David Modelling weapon engagement zones using machine learning (p113)
3:20–3:40	Yang, Qianqian Characterising brain cell morphology using a sub-diffusion model for MRI (p127)	Tan, Eugene* Being selfish with your relationships: A selfish agent model for opinion dynamics and echo chamber formation (p119)	Mandoora, Kholod* Unsteady solutions of the forced Korteweg–de Vries equation with negative forcing and weak dispersion (p87)	Yeh, Wei-Chang Efficient allocation of financial resources to ensure dependable resilience in networks (p128)	Shelyag, Sergiy Modelling of decision-making in complex conflict environments (p112)
3:40–4:00	Afternoon tea on The Deck				

Wednesday afternoon (continued)					
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	Upper North <i>Chair: Alex Tam</i>	Upper South <i>Chair: Nick Beeton</i>	Lakeview <i>Chair: Terry O'Kane</i>	Business Centre <i>Chair: Vivien Challis</i>	Summit Centre <i>Chair: Amie Albrecht</i>
4:00–4:20	Ahmed, Ishraq Macrophage motility and cellular cargo transport in a multiphase model for atherosclerotic plaques (p40)	Holloway-Brown, Jacinta Improved short-term Antarctic sea ice extent predictions with machine learning and remote sensing data (p70)	Asiri, Zayed* Mathematical modelling of the vulnerability of subsea aquifers to seawater intrusion (p43)	Hoshino, Hidetomo ^{*J} Improving stability of covariant BSSN formulation of the Einstein equations against homogeneous and isotropic spacetime background (p70)	Yoshizumi, Ryo* Construction of Castryck-Decru attack for B-SIDH and its implementation (p128)
4:20–4:40	Zanca, Adriana Cell differentiation architectures (p128)	Holdorf, Jordan* When to invest in conservation with climate uncertainty (p69)	McGuinness, Mark Bauxite moisture measurement using microwaves (p90)	Wegert, Zachary1* Level set-based inverse homogenisation of piezoelectric metamaterials (p124)	Bandara, Ishara* Winning with chaos in soccer: entropy-based analysis for team performance evaluation (p67)
4:40–5:00	Miller, Claire Modelling immune cell interactions with endometrial cells in endometriosis (p91)	El-Hachem, Maud Coexistence in two-species competition with delayed maturation (p57)	Hocking, Graeme Putting the eggs before the chickens: a model of chicken farming in Ethiopia (p68)	Tagami, Daisuke Numerical analysis of an incomplete balancing Domain Decomposition Method based on Polytopal Elements (p118)	Keegan-Treloar, Jamie* Complex-valued neural networks (p76)
5:00–5:20			Valani, Rahil Tipping phenomena in inertial focusing and separation of particles (p121)	Ishida, Sachiko^J Geometrical design and mechanical properties of origami-inspired cylindrical honeycomb cores (p72)	Aksamit, Anna Entropy and enlargement of filtrations (p41)
6:30	Conference dinner in Upper North and Upper South				