5 Conference Events at a Glance

Time	Sun 11 Feb	Mon 12 Feb	Tue 13 Feb	Wed 14 Feb	Thu 15 Feb	Time
7:30–8:20			LGBTIQA+ and Allies breakfast			7:30–8:20
8:40		Welcome	Plenary Zakeri			8:40
9:00		Plenary Abrahams		Plenary Nataraj	Plenary Roberts	9:00
9:20						9:20
9:40			Contributed talks			9:40
10:00		Contributed talks		Contributed talks	Contributed talks	10:00
10:20						10:20
10:40			Morning tea		Morning tea	10:40
11:00		Morning tea	Contributed talks	Morning tea	Contributed talks	11:00
11:20		Contributed talks		Contributed talks		11:20
11:40						11:40
12:00			Plenary Bennetts		Plenary Jenner	12:00
12:20						12:20
12:40						12:40
1:00		Lunch	Lunch / WIMSIG Lunch	Lunch	Lunch	1:00
1:20						1:20
1:40						1:40
2:00		Plenary Fulton		Plenary Lustri		2:00
2:20						2:20
2:40						2:40
3:00		Contributed talks		Contributed talks		3:00
3:20						3:20
3:40	Registration opens	Afternoon tea		Afternoon tea		3:40
4:00		Contributed talks		Contributed talks		4:00
4:20	ANZIAM Exec (4-6pm)					4:20
4:40						4:40
5:00						5:00
5:20						5:20
6:30	Opening BBQ	Student social event		Conference dinner		6:30
7:30			ANZIAM AGM			7:30
8:30						8:30

Monday morning

*student talk [J]JSIAM/ANZIAM collaboration

8:00-8:30	Registration
8:30–9:00	Conference Opening
9:00–9:50	**Invited talk: Abrahams, David** A historical look at analytical approaches to wave diffraction and scattering (p19) *Chair: Yvonne Stokes*

	Upper North *Chair: Adelle Coster*	**Upper South** *Chair: P. Pooladvand*	**Lakeview** *Chair: Rahil Valani*	**Business Centre** *Chair: Tony P. Roberts*	**Summit Centre** *Chair: Hinke Osinga*
10:00–10:20	**Gray, Catheryn** Right place, right time, right activation (p62)	**Korsah, Maame*** Mathematical assessment of the role of intervention programs for malaria control (p79)	**Meylan, Mike** Theory of piezolectric and other hydroleastic wave energy converters (p91)	**Rajapaksha, Thakshila*** Linear convergence of tilt-correct DFO proximal bundle method (p107)	**Wechselberger, Martin** Shock selection rules in composite regularised reaction-nonlinear diffusion models (p123)
10:20–10:40	**Levi, Noa*** Mathematical models of therapeutic intervention in robust chemical reaction networks (p84)	**Foo, Yong See*** Interplay between model fitting and model construction for biological dynamical systems (p59)	**Westcott, Amy-Rose*** Broadband energy capture by an array of heaving buoys (p125)	**Challis, Vivien** Optimisation of a multi-functional piezoelectric component for a climbing robot (p52)	**Marangell, Robert** Stability of asymptotic waves in the Fisher-Stefan equation (p87)
10:40–11:00	**Kuba, Shahak*** Incorporating cell mechanics into a model of biological tissue growth within confined spaces (p80)	**Harrison, Lucinda*** Near optimal selection of sites for mosquito surveillance of Japanese encephalitis virus in Australia (p66)	**McCue, Scott** Three-dimensional linear gravity-capillary wave patterns (p89)	**Bui, Thi Hoa** Cutting plane algorithms are exact for Euclidean max-sum problems (p49)	**Miller, Thomas*** Shock positions for regularized reaction-diffusion equations with negative diffusivity (p92)
11:00–11:20	Morning tea on The Deck				

Monday morning (continued)

*student talk [J]JSIAM/ANZIAM collaboration

	Upper North *Chair: Zoltan Neufeld*	Upper South *Chair: Michael Plank*	Lakeview *Chair: Scott McCue*	Business Centre *Chair: M. Wechselberger*	Summit Centre *Chair: Peter Taylor*
11:20–11:40	**Johnston, Stuart** Efficient modelling of heterogeneous cell populations (p74)	**Anwar, Md Nurul*** Investigation of Plasmodium vivax elimination under mass drug administration (MDA) (p42)	**Amarathunge Achchige, Tharindi*** Pattern formation of precursor films: a new mathematical model (p42)	**Smith, Lauren** Model reduction for finite networks of coupled oscillators with higher order interactions (p114)	**Huang, Boris*** Compounded Sibuya random walks and the fractional graph Laplacian (p71)
11:40–12:00	**Georgiou, Fillipe** Including organism and environmental heterogeneity in collective behaviour: looking at locusts (p60)	**Nitschke, Cody** Modelling the impact of infectious disease introduced to Australia through European contact (p99)	**Kedda, Steven*** Self-similarity in non-Newtonian thin films (p76)	**Subramanian, Priya** Rogue bursts as an effect of broken symmetry (p116)	**McArthur, Harry*** Balancing the privacy and utility with margin-consistent noise (p89)
12:00–12:20	**Oelz, Dietmar** Emergence of asymmetry in Hydra spheroids (p101)	**Lydeamore, Michael** Generating synthetic contact matrices using open-source data (p86)	**Yang, Xinyi*** Escape motility of multicellular magnetotactic prokaryotes (p127)	**Krauskopf, Bernd** Emergence of a blender: weaving a carpet from one-dimensional global manifolds (p80)	**Xing, Chenchen*** Pricing for perishable goods in a queueing system (p127)
12:20–12:40	**Dharma, Rodney*** Resolving spatial heterogeneity in microbial symbiosis (p54)	**Ryan, Matt** BaD transmission modelling: Incorporating human behaviour into simple models of disease transmission (p108)	**Dallaston, Michael** Thin filament modelling of Hele-Shaw flow (p53)	**Osinga, Hinke** A dynamical systems approach to low-damage seismic design (p102)	**Zhang, Xinyi*** Pricing American down-and-out call options with transaction costs (p129)
12:40–1:00	**Murphy, Ryan** Quantifying biological heterogeneity in nanoparticle-cell interaction experiments (p95)	**Hickson, Roslyn** Buzz off! Suppressing the neglected mosquitoes transmitting neglected diseases (p67)	**Pototsky, Andrey** Electromagnetically driven flow in unsupported electrolyte layers: lubrication theory and linear stability of annular flow (p106)	**Bailie, John*** Resonance structure due to periodic forcing: case study of a climate model with seasonal variation (p45)	**Roughan, Matthew1** Randomly surreal (numbers) (p107)
1:00–2:00	Lunch on The Deck				

Monday afternoon

*student talk [J]JSIAM/ANZIAM collaboration

2:00–2:50 **Invited talk: Fulton, Beth**
Our complex world creates holes in predictive capacity, is that really a bad thing? (p21)
Chair: Melanie Roberts

	Upper North *Chair: Stuart Johnston*	Upper South *Chair: Matt Ryan*	Lakeview *Chair: Steve Taylor*	Business Centre *Chair: Ryan Murphy*	Summit Centre *Chair: Boris Baeumer*
3:00–3:20	**Ivory, Elizabeth*** Agent-based modelling of *Plasmodium vivax* under treatment with radical cure (p73)	**Flegg, Jennifer** A spatiotemporal model of multi-marker antimalarial resistance (p58)	**O'Kane, Terence2** Bayesian structure learning for climate model evaluation (p100)	**Roughan, Matthew2** The polylogarithm function in Julia (p108)	**Joshi, Nalini** Dynamics through the lens of cryptography (p74)
3:20–3:40	**Stadler, Eva** Translation of the resistance risk for the antimalarial drug cabamiquine across infection models (p115)	**Baker, Christopher** Developing real-time modelling capabilities for emergency animal disease outbreaks. (p45)	**Grant, Patrick*** Simple wood, complex challenges: modelling moisture migration and swelling in timber boards (p62)	**Wegert, Zachary2*** An extendable *Julia*-based set of scalable computational tools for level set-based topology optimisation (p124)	**Morrison, Peter*** Hyperbolic special functions and the projection-slice theorem (p94)
3:40–4:00	Afternoon tea on The Deck				

Monday afternoon (continued)

*student talk [J]JSIAM/ANZIAM collaboration

	Upper North *Chair: Adrianne Jenner*	**Upper South** *Chair: Maud El-Hachem*	**Lakeview** *Chair: Edward Hinton*	**Business Centre** *Chair: Bernd Krauskopf*	**Summit Centre** *Chair: Mark McGuinness*
4:00–4:20	**Williams, Thomas*** Incorporating the structure of the lung into models of respiratory viral infections (p126)	**Holden, Matthew** The value of information paradox (p68)	**Oliver, Dylan*** Dual-grid mapping method for the advection-diffusion-reaction equation in a heterogeneous medium (p101)	**Dipierro, Serena** Analysis of an ecological niche: competition versus cooperation (p55)	**Kapsis, Maria*** Managing peak power demand for a fleet of trains (p75)
4:20–4:40	**Jayathilake, Chathranee*** Tractability of biochemical signalling models (p73)	**Pascal, Luz*** When to stop investing in technology development for ecosystem management? (p103)	**Mansoor, Wafaa Faisal** Modelling of dispersal of hydrogen in the retina: Axisymmetric solution (p87)	**Burney, Stuart-James*** Properties of novel exact solutions to advection equations and diffusion equations with time-delay (p50)	**Bala, Indu** Optimizing neural network training: the impact of Levy-Flight and Chaos in Artificial Electric Field Algorithm (p46)
4:40–5:00	**Lee, Lloyd*** The effect of calcium influx on calcium signalling (p83)	**Stewart, Owen*** Applying modern portfolio theory to marine spatial management (p102)	**Watt, Simon** Critical initial conditions in competitive exothermic-endothermic reaction systems (p122)	**Suda, Tomoharu[J]** Effective reaction rates in chemical reaction networks (p117)	**Kolyaei, Mary*** A reinforcement learning method for optimizing the omnichannel retail problems (p79)
5:00–5:20	**Sharma, Akshay** Uncovering the secrets of cancer: discover how microRNA-17-92 utilises transcriptional and translational time delays to control the gene expression network (p111)	**Mills, Elise*** A generalised sigmoid population growth model with energy dependence: application to quantify the tipping point for Antarctic shallow seabed algae (p92)	**Myerscough, Mary** Mathematical tools for science students—a context-driven applied mathematics service unit (p95)	**Mancini, Renzo*** Bifurcation analysis of a two-delay model for the Atlantic Meridional Overturning Circulation (p86)	**Sadegh Zadeh, Hajar*** Comprehensive forecasting of emergency cases arrivals for surgical departments: a comparative analysis of existing approaches (p109)
6:30	Student social event at the Hahndorf Inn				

Tuesday morning

*student talk [J]JSIAM/ANZIAM collaboration

7:30–8:20	LGBTIQA+ and Allies Breakfast on The Deck
8:40–9:30	**Invited talk: Zakeri, Golbon** Optimal investment and operation of green electricity systems (p26) *Chair: Matthew Tam*

	Upper North *Chair: D.Netherwood*	**Upper South** *Chair: Roslyn Hickson*	**Lakeview** *Chair: Judy Bunder*	**Business Centre** *Chair: Simon Clarke*	**Summit Centre** *Chair: Amie Albrecht*
9:40–10:00	**Kearney, Taylor*** Enzyme kinetics simulation at the scale of individual particles (p75)	**Le, Thao** Agent-based modelling in the post-Omicron era of COVID-19 management (p83)	**Peter, Malte** Identification of microstructural information from macroscopic boundary measurements in linear elasticity (p104)	**McGowan, Sean*** Modal error analysis and prediction compensation for Earth system models (p90)	**Bottema, Murk** Information geometry for bats (p48)
10:00–10:20	**Binder, Benjamin** Modelling spatial growth pattern formation in yeast colonies (p48)	**Sexton, Justin** Weather or not? Exploring the impact of human movement and weather on dengue outbreaks in Pacific Island Countries (p110)	**Saini, Babita** Mathematical modelling of empirical correlations and validation of shear strength of high strength steel fibres reinforced concrete beams (p109)	**Axelsen, Andrew*** Hyperbolicity and southern climate dynamics (p44)	**Newcombe, Alex** Implementation aspects of passive geolocation (p98)
10:20–10:40	**Li, Kai*** Modelling of cylindrical yeast colony growth (p85)	**Diao, Jiahao** Effectiveness of isolating infected cases with low viral loads at different stages of outbreak (p55)	**Kajiwara, Kenji[J]** A truss structure with mechanical optimality, integrability and artisiticity (p74)	**Kitsios, Vassili** Data-driven and physics-constrained reduced order model of the global oceans (p78)	**Oishi-Tomiyasu, Ryoko[J]** Packing theory derived from phyllotaxis and products of linear forms (p101)
10:40–11:00	Morning tea on The Deck				

Tuesday morning (continued)

*student talk [J]JSIAM/ANZIAM collaboration

	Upper North *Chair: Mary Myerscough*	**Upper South** *Chair: Lewis Mitchell*	**Lakeview** *Chair: Malte Peter*	**Business Centre** *Chair: Robert Marangell*	**Summit Centre** *Chair: Sergiy Shelyag*
11:00–11:20	**Hancock, Edward** Mechanisms of plateau formation for oscillations in lymphatic muscle cells (p65)	**Kollepara, Pratyush*** Heterogeneity in network structure switches the dominant transmission mode of infectious diseases (p78)	**Aljabri, Rehab*** Time-dependent vibrations of an ice shelf (p41)	**Lapuz, Timothy*** A multiple time scale analysis of an immunogenic tumour model (p81)	**O'Kane, Terence1** Realizable Markovian closures for anisotropic and inhomogeneous turbulent flows (p100)
11:20–11:40	**Ndenda, Joseph** A mathematical model for the role of smooth muscle cells phenotype switching in atherosclerotic plaque (p96)	**Abell, Isobel*** Modelling the spread of varroa mite on a network of European honeybee hives (p40)	**Alberello, Alberto** Dynamics of nonlinear water waves in dissipative media (p41)	**Groothuizen Dijkema, David*** Switching near heteroclinic networks as a piecewise-smooth dynamical system (p64)	**Li, Dan** Forecasting climate change impacts on the production of crops key to food security (p84)
11:40–12:00	**Filippini, Luke*** Surrogate models for diffusive transport in radially-symmetric media (p58)	**Isaac, Zac*** Modelling light presented to the human fetus using Monte Carlo simulations (p71)	**Liang, Jie*** Pan-Antarctic assessment of ocean wave induced flexural stresses on ice shelves (p85)	**Moolchand, Prannath** Understanding the active metabolic oscillatory subsystem in pancreatic beta cells using geometric singular perturbation techniques. (p93)	**Groom, Michael** Data-driven prediction of the El Niño–Southern Oscillation using entropy-optimal Scalable Probabilistic Approximations (p63)
12:10–1:00	**Invited talk: Bennetts, Luke** Of ocean waves and ice shelves (p20) *Chair: TBA*				
1:00–2:00	Lunch on the Upper Level				
1:00–2:30	WIMSIG Lunch on The Deck				
7:30–8:30	ANZIAM AGM in Upper North and Upper South				

Wednesday morning

*student talk [J]JSIAM/ANZIAM collaboration

9:00–9:50 — **Invited talk: Nataraj, Neela**
A unified framework for lowest-order FEM for fourth-order plates (p24)
Chair: Brendan Harding

	Upper North *Chair: Ben Binder*	**Upper South** *Chair: Matthew Holden*	**Lakeview** *Chair: Larry Forbes*	**Business Centre** *Chair: Tony J. Roberts*	**Summit Centre** *Chair: Michael Haythorpe*
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 [J]JSIAM/ANZIAM collaboration

	Upper North *Chair: Mat Simpson*	Upper South *Chair: M. Lydeamore*	Lakeview *Chair: Andrey Pototsky*	Business Centre *Chair: N. Thamwattana*	Summit Centre *Chair: David Skene*
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, Ruarai*** 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[J]** 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

*student talk [J]JSIAM/ANZIAM collaboration

2:00–2:50 — **Invited talk: Lustri, Chris**
Stokes' phenomenon and numerical analytic continuation (p23)
Chair: Nalini Joshi

	Upper North *Chair: Rebecca Chisholm*	**Upper South** *Chair: Cody Nitschke*	**Lakeview** *Chair: Joern Wichmann*	**Business Centre** *Chair: Hoa Bui*	**Summit Centre** *Chair: Jody McKerral*
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)

*student talk [J]JSIAM/ANZIAM collaboration

	Upper North *Chair: Alex Tam*	**Upper South** *Chair: Nick Beeton*	**Lakeview** *Chair: Terry O'Kane*	**Business Centre** *Chair: Vivien Challis*	**Summit Centre** *Chair: Amie Albrecht*
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				

Thursday morning

*student talk [J]JSIAM/ANZIAM collaboration

9:00–9:50 **Invited talk: Roberts, Tony J.**
Form macroscale models via an ensemble of microscale phase-shifts (p25)
Chair: Herbert Huppert

	Upper North *Chair: Pascal Buenzli*	**Upper South** *Chair: Mark Flegg*	**Lakeview** *Chair: Bronwyn Hajek*	**Business Centre** *Chair: Phil Broadbridge*	**Summit Centre** *Chair: Pierluigi Cesana*
10:00–10:20	**Han, Daniel Seungmin** Self-reinforcing persistent random walks (p64)	**Roberts, Melanie** Modelling interventions in the MERGE gully erosion model (p107)	**Valdinoci, Enrico** Long-range capillarity theory (p122)	**Kukreja, Vijay** Solution of Fisher's and Burger's-Fisher equation using septic Hermite collocation method (p81)	**Warne, David** Generalised likelihood profiles for models with intractable likelihoods (p122)
10:20–10:40	**Pan, Michael** Modelling resource limitation and competition in gene regulatory networks (p103)	**Plank, Michael** Forecasting Covid-19 in Aotearoa New Zealand (p105)	**Stokes, Yvonne** The effect of internal structure on the stability of fibre drawing (p116)		**Saini, Lalit Mohan** Optimization of switching frequency and pulse width of buck converter based inverter (p110)
10:40–11:00	Morning tea on The Deck				

Thursday morning (continued)

*student talk [J]JSIAM/ANZIAM collaboration

	Upper North *Chair: J. Flegg*	Upper South *Chair: J. Holloway-Brown*	Lakeview *Chair: Mike Chen*	Business Centre *Chair: Graeme Hocking*	Summit Centre *Chair: Murk Bottema*
11:00–11:20	**Berry, Matthew** Predicting protection against Mpox infection (p47)	**Simpson, Matthew** Efficient prediction, estimation and identifiability analysis with mechanistic mathematical models (p113)	**Thamwattana, Natalie** Bio-geochemical clogging in permeable reactive barriers when treating acidic groundwater (p120)	**Campbell, Daniel** Injectivity in second-gradient nonlinear elasticity (p51)	**Haythorpe, Michael** Determining the crossing numbers of certain graph products (p66)
11:20–11:40	**Penington, Catherine** Spatial dynamics of inflammation-causing and commensal bacteria in the gastrointestinal tract (p104)	**Beeton, Nick** Spatial modelling for population replacement of mosquito vectors at continental scale (p47)	**Broadbridge, Philip** Reaction-diffusion models for fish populations with realistic mobility (p49)	**Lather, Jagdeep Singh** Synchronization of two coupled quadcopters using contraction theory (p82)	**Neogy, Samir Kumar** On solving a class of graph theoretic nonconvex optimization problems (p97)
11:40–12:00	**Sohail, Ayesha** Optimizing noninvasive ventilation strategies: a comparative study of mathematical models and machine learning approaches (p115)	**Flegg, Mark** Exact SSA for disease population dynamics coupled to within-host dynamics (p59)	**Forbes, Larry** FireNado! (p59)	**Matsue, Kaname[J]** A unified characterization of blow-up solutions for ODEs through dynamics at infinity (p88)	**Tam, Matthew** A decentralised algorithms for min-max problems (p118)
12:10–1:00	**Invited talk: Jenner, Adrianne** Compare the pair: mathematics of disease responses and treatment variability (p22) *Chair: Alys Clark*				
1:00–1:10	Closing remarks and presentation of the Cherry Ripe Prize				
1:10–2:00	Lunch on The Deck				