

Thirteenth Annual UNSW Mathematics and Statistics Postgraduate Conference

Monday 10th of August, 2026
Colombo Theatres, UNSW Sydney

Schedule for Colombo Theatre A

<i>Session 1</i>		
<i>Chaired by Dominic Matan</i>		
Victor L. Zhang	Diagrammatic Lusztig–Vogan Categories	09:30
Thomas Dunmore	Quadratic Fusion Categories and Their Modules	09:50
Daniel Dunmore	Realizing Non-Unitary Near-Groups via Endomorphisms	10:10
Leyao Zha	Equivariant algebraic geometry	10:30
<i>Morning Tea</i>		10:50
<i>Session 2</i>		
<i>Chaired by Chip Corrigan</i>		
Dominic Matan	Noncommutative surfaces and birational automorphisms	11:20
Chris Zeng	Moduli spaces in algebraic geometry	11:40
Joshua Johansson	KMS states of twisted semigroup C^* -algebras	12:00
Danielle Morrigan	Kruglov’s operator, freed	12:20
<i>Lunch</i>		12:40
<i>Session 3</i>		
<i>Chaired by Jacques du Plooy</i>		
William Hadden	Einstein Metrics on Four-Manifolds	14:00
Chip Corrigan	Subconvexity estimates for modular L -functions	14:20
Nye Taylor	Maker-Breaker Games	14:40
Hopein Christofen Tang	A combinatorial formulation of the MacWilliams identity	15:00
<i>Afternoon Tea</i>		15:20
<i>Plenary Session</i>		
<i>Chaired by Boris Huang and Rui Tong</i>		
Siddharth Iyer	Digits of Partition Functions	15:50
Kevin Kühl Oliveira	Learning dynamically inspired bases for Koopman and transfer operator approximation	16:10
Rick Ren	Hallucination in LLMs	16:30
<i>Introductions from newly-started students</i>		16:50
Jordan Lorenzatto, Ethan Mitchell, Yasir G, Enxi Lin, Irteza Chaudhry, Naomi Reed, Dat Tran, Jeffrey Yang, Sky Basire, Jacques du Plooy, Lachlan Dunn, Rui Tong, Liam Heng, Sangdeok Lee, Aaron Gibson-John, Chris Zeng, Joshua Johansson, Khue Tran, and Abraham Raya		
<i>Awarding of prizes and closing</i>		17:10
<i>Reception</i>		17:30

Schedule for Colombo Theatre B

<i>Session 1</i>		
<i>Chaired by Jordan Lorenzatto</i>		
Gabriel Nakhl	From Existence to Localisation of Non-Local Equations	09:30
Greta Paget	Heat extremes in a net-zero climate	09:50
Fabian Zehetgruber	Neural Networks in Computational Mathematics: Approximation Power and Computational Limits	10:10
Boris Huang	Generalisations of compound random walks	10:30
<i>Morning Tea</i>		10:50
<i>Session 2</i>		
<i>Chaired by Greta Paget</i>		
Joshua Connor	Wake patterns of submerged objects in two stratification profiles	11:20
Nicholas Peters	Optimal Perturbations of the El Nino Southern Oscillation	11:40
Kabir Agrawal	Growth of perturbations in regimes of mixed predictability	12:00
Reg Dowse	Vertical Tilt of Mesoscale Ocean Eddies in The Tasman Sea	12:20
<i>Lunch</i>		12:40
<i>Session 3</i>		
<i>Chaired by Abraham Raya</i>		
Jenny Zhao	Regularized Penalty Approach to American Option	14:00
Shenghan Gao	Dual-absorbing geometrically matched regularized DRO in index tracking problem	14:20
Andrew Zhang	The Boruta-RFE feature selection framework with class-specific SHAP	14:40

Schedule for Colombo Theatre C

<i>Session 1</i>		
<i>Chaired by Khue Tran</i>		
Abraham Raya	Enhancing Motorsport Performance via Computational Statistics	09:30
Aaron Gibson-John	Before the Failure: Predictive Fault Detection in Inkjet Printhead Manufacturing	09:50
Shaoqian Huang	Model-based Assessment of Phylogenetic and Functional Diversity	10:10
Mehreen Afzaal	Estimating sample characteristics from data summaries	10:30
<i>Morning Tea</i>		10:50
<i>Session 2</i>		
<i>Chaired by Rick Ren</i>		
Max Fisher	Predictively-oriented transdimensional inference	11:20
Zelong Bi	Missing Data Imputation under Manifold Hypothesis	11:40
Anson MacDonald	Metric Tree Approximation for Sampling with Interacting Particle Methods	12:00
Mst. Bithi Akter	Parametric Discrete Copulas	12:20
<i>Lunch</i>		12:40
<i>Session 3</i>		
<i>Chaired by Max Fisher</i>		
Amuchechukwu Ibenegbu	ST-MICE: A trajectory-Aware Multiple Imputation Framework for Spatiotemporal data via Principal Curve	14:00
Jason Lambe	Modelling aftershock incompleteness of earthquake catalogues with a thinned ETAS process	14:20
Khue Tran	A Statistical Framework for Data Streams	14:40
Ao Sun	Biomarkers selection and combination based on the weighted Youden index	15:00