

#BIBC2025 Schedule

Tuesday

Start	Arc Cinema	Theatrette
08:15	Conference Registration	
08:45	Opening remarks and housekeeping	
09:05	Keynote – Chair: Chris Brien On Finding Good Experiments by Cheng Soon Ong	
10:00	Session 1A – Chair: Garth Tarr Data-Adaptive Automatic Threshold Calibration for Stability Selection by Martin Huang Variable Selection in a Joint Model for Huntington's Disease Data by Rajan Shankar StableMate: a regression framework for selecting stable predictors across heterogeneous data environments by Yidi Deng	Session 1B – Chair: Scott Foster Estimating abundance in small populations using pedigree reconstruction by Sarah Croft Accounting for heterogeneous detection rates when inferring eradication of an invasive species by Sean A. Martin Zero-inflated Tweedie distribution for abundance of rare ecological species by Nokuthaba Sibanda
11:00	Morning Tea	
11:30	Session 2A – Chair: Alan Welsh Extending Spatial Capture-Recapture with the Hawkes Process by Alec B. M. van Helsdingen A Test for Detecting Multiple Clusters with Hotspot Spatial Properties by Kunihiko Takahashi Outlier-robust estimation of state-space models using a penalised approach by Garth Tarr Disease cluster detection via functional additive models incorporating spatial correlation by Michio Yamamoto	Session 2B – Chair: James Curran Group Sampling with Imperfect Testing for Biosecurity Applications by Adele Jackson Koala Distribution and Abundance by Scott D. Foster Speed: An R package for Spatially Efficient Experimental Designs by Sam Rogers Running Human Subject Experiments via Online Crowdsourcing by Patrick Li

(continued)

Start	Arc Cinema	Theatrette
12:50	Lunch	
13:50	Invited Session: A Cluster of Modern Clustering Methods for Biometrics – Chair: <i>Francis Hui</i> Bayesian clustered ensemble prediction for multivariate time series by <i>Shonosuke Sugasawa</i> The difficulties of clustering categorical or mixed data by <i>Louise McMillan</i> Species archetype models for presence-only data by <i>Skipton N.C. Woolley</i>	Session 3B – Chair: Ruth Butler Building Trust Without Peer Review: Establishing Reproducibility Standards in Industrial Statistical Consulting by <i>Dean Marchiori</i> Teaching Meta-Analysis for Systematic Reviewers with Mixed Statistical Training by <i>Xu Ning</i> Tales from the jungle: a personal perspective of statistical consulting since COVID by <i>Alice Richardson</i> Better Conversations, Better Support: Strengthening Consulting through Practical Education and Community by <i>Sharon G. Nielsen</i>
15:20	Afternoon Tea	
15:50	Session 4A – Chair: Zhanglong Cao Nested-factorial treatment models: types, their uses and examples by <i>Chris Brien</i> Integrating Spatial Data and On-Farm Experimentation to Understand Wheat Variety Performance Across Western Australia by <i>Sandra K. Tanz</i> Multi-environment trial analysis of count data with complex variance structures using generalised linear mixed models by <i>Michael H. Mumford</i>	Session 4B – Chair: Graham Hepworth Enhancing Fraud Detection in Banking through Random Survival Forests: Addressing Data Imbalance and Model Transparency by <i>Arjun Sekhar</i> Using point cloud data to discover genomic regions associated with dynamic height by <i>Colleen H Hunt</i> Automatic debiased machine learning (autoDML) for causal inference: implementation and evaluation in real-world observational studies by <i>Tong Chen</i>

Tuesday Poster Session

- Location: Gallery
- Time: 17:00-19:00

1. **Using atmospheric transport models to predict species incursions in northern Australia** by *Zhenhua (Iris) Hao Dr*
2. **Visualisation of multinomial multilevel time-series modelling with application to current smoking status** by *Alice Richardson*
3. **Paired Comparison with Cyclic Dominance: An Extension of the Bradley-Terry Model** by *Yuki Ohno*
4. **Cleaning Text Data with Large Language Models** by *Jiajia Li*
5. **ggincerta: An R Package for Uncertainty Visualisation with a Layered Grammar of Graphics** by *Xueqi Ma*
6. **The “Theory of Sampling” (ToS) - have statisticians missed the boat?** by *Damian Collins*
7. **Evaluating Diagnostic Performance via Bayesian F_1 Score Estimation without a Gold Standard** by *Jun Tamura*
8. **Evaluating Remote Monitoring in Automated Peritoneal Dialysis: A Difference-in-Differences Analysis** by *Annie Conway*
9. **Judgement Post-Stratification for Covariate Adjustment in Pairwise Comparisons in Block Designs** by *Sam Rogers*
10. **Bayesian inference for sparse Gaussian copula graphical model** by *Tomotaka Momozaki*
11. **Visualization for departures from symmetry with the power-divergence-type measure in square contingency tables** by *Wataru Urasaki*
12. **Performance of Factor Analytic Mixed Models and Plackett-Luce Models for Genotype Ranking in Multi-Environment Trials** by *Jiazhe Lin*

Wednesday

Start	Arc Cinema	Theatrette
08:30	Conference Registration	
08:50	Housekeeping	
08:55	Keynote – Chair: Thomas Lumley Uses of gnm for Generalized (Non)linear Modelling by <i>Heather L. Turner</i>	
09:50	Session 5A – Chair: David Warton Scalable finite mixture of regression models for clustering species responses in ecology by <i>Francis KC Hui</i>	Session 5B – Chair: Sam Rogers Using a linear mixed model based wavelet transform to model non-smooth trends arising from designed experiments by <i>Clayton Forknall</i>

(continued)

Start	Arc Cinema	Theatrette
	Elastic Net Regularization for Vector Generalized Linear Models: A Flexible Framework for High-Dimensional Biomedical Data by <i>Wenqi Zhao</i>	Functional Data Analysis for the Australian Grains Industry by <i>Braden J. Thorne</i>
	Fitting Generalised Linear Mixed Models using Sequential Quadratic Programming by <i>Peter Green</i>	Bayesian Ordinal Regression for Crop Development and Disease Assessment by <i>Zhanglong Cao</i>
10:50	Morning Tea	
11:20	Invited Session: Statistics for Biosecurity Surveillance – Chair: Robert Clark	Session 6B – Chair: Linh Nghiem
	Optimal allocation of resources between control and surveillance for complex eradication scenarios by <i>Mahdi Parsa</i>	Estimating extinction time from the fossil record using regression inversion by <i>David I. Warton</i>
	Inferring the rate of undetected contamination using random effects modelling of biosecurity screening histories by <i>Sumonkanti Das and Robert Clark</i>	The performance of Yu and Hoff's confidence intervals for treatment means in a one-way layout by <i>Paul Kabaila</i>
	Optimal sampling in border biosecurity: Application to skip-lot sampling by <i>Raphael Trouve</i>	Rate-optimal sparse gamma scale mixture detection by <i>Michael Stewart</i>
		Extension of the corrected score estimator in a Poisson regression model with a measurement error by <i>Kentarou Wada</i>
12:50	Lunch	
13:00	Social Activities	
18:30	Young (at heart) Biometrician Social Event	

Thursday

Start	Arc Cinema	Theatrette
08:30	Conference Registration	
08:50	Housekeeping	
08:55	Invited Session: Statistics for Biosecurity Surveillance – Chair: Beatrix Jones	
	Modularizing Biometric Models Facilitates Multistage Computing by Mevin B. Hooten	
09:50	Session 7A – Chair: Vanessa Cave	Session 7B – Chair: Alice Richardson
	Visualize your fitted non-linear dimension reduction model in the high-dimensional data space by P. G. Jayani Lakshika	Reporting Odds Ratios under Fluctuating Reporting Rates in Spontaneous Reporting Systems by Tatsuhiko Anzai
	The geometry of diet: using projections to quantify the similarity between sets of dietary patterns by Beatrix Jones	Handling Missingness in Prevalence Estimates from National Surveys by Oyelola Adegboye
	Multivariate meta-analysis methods for high-dimensional data by Alysha M. De Livera	Pooled testing with penalized regression models by Christopher Bilder
10:50	Morning Tea	
11:20	Session 8A – Chair: Matthew Schofield	Session 8B – Chair: Chris Triggs
	Integrated Species Distribution Models: A Single-Index Approach by Quan Vu	Crossvalidation for predictive models in complex survey data by Thomas Lumley
	Simultaneous Inference for Latent Variable Predictions in Factor Analytic Models by Zhining Wang	A Set of Precise Asymptotics for Gaussian Variational Approximation in Generalised Linear Mixed Models by Nelson J. Y. Chua
	Model-based assessment of functional and phylogenetic diversity by Shaoqian Huang	An allometric differential equation model quantifies energy trade-offs between growth and reproduction under temperature variation by Hideyasu Shimadzu
	Fitting integrated species distribution models using mgcv by Elliot Dovers	A circular hidden Markov model for directional time series data by A.A.P.N.M. Perera
12:40	Lunch	
13:40	Invited Session: Methods and Practice in Agricultural Analytics – Chair: Emi Tanaka	Session 9B – Chair: Sam Mason

(continued)

Start	Arc Cinema	Theatrette
	Evaluating the impact of trait measurement error on genetic analysis of computer vision-based phenotypes by Gota Morota	Do Mice Matter? The Impact of Mice on a New Zealand Ecosanctuary by Vanessa Cave
	Prediction of Daily Weight Gain with Cattle Behaviour and Daily Activity Using Triaxial Accelerometer Data by Shuwen Hu	Modelling Species Diversity from Citizen-Science Bird Counts by Graham Hepworth
	Fishing for Heritability in the Gill Microbiome: Why Statisticians Should get out into the field by Elle Saber	Continental-Scale Bayesian Analysis of Acacia Flowering Phenology: A Novel Framework Integrating Phylogenetic Signal and Circular Statistics by Owen Forbes
		Spatio-Temporal Species Distribution Modelling by Sam Mason
15:10	Afternoon Tea	
15:40	Session 10A – Chair: Julian Taylor	Session 10B – Chair: Oyelola Adegbeye
	The equalto covariance structure for meta-analysis using the glmmTMB R package by Coralie C. Williams	Extending diagnostic validity meta-analysis to several diagnostic guidelines by Alain C. Vandal
	Simulation-based Inference about Variance Components by Farwa Saleem	Risk of Guillain-Barré Syndrome after COVID-19 vaccination and SARS-CoV-2 infection: A multinational self-controlled case series study by Han Lu
	A Proportional Random Effect Block Bootstrap for Highly Unbalanced Clustered Data by Zhi Yang Tho	Childhood Risk and Resilience Factors for Pasifika Youth Respiratory Health: Accounting for Attrition and Missingness by Siwei Zhai
		A missing data detective story – how I navigated through a perfect storm of drop-out's, COVID and informative missingness. by Eve Slavich
15:50		AGM
18:30	Conference Dinner	

Friday

Start	Arc Cinema	Theatrette
08:40	Conference Registration	
09:00	Housekeeping	
09:05	Keynote – Chair: Louise McMillan Saddlepoint approximations for likelihoods by Jesse Goodman	
10:00	Session 11A – Chair: Yidi Deng False Discovery Rate Controlled Robust Variable Selection under Cellwise Contamination by Xiaoya Sun A covariate-adaptive test for replicability across multiple studies with false discovery rate control by Dennis Leung	Session 11B – Chair: David Baird Genstat Markdown: Reproducible Research with Genstat by James M. Curran
	 A semi-supervised framework for diverse multiple hypothesis testing scenarios by Jack Freestone	 The 4S method for the longitudinal analysis of multidimensional questionnaires: application to Parkinson's disease progression from patient perception by Tiphaine Saulnier heritable An R package for heritability calculations for plant breeding trials by Fonti Kar
11:00	Morning Tea	
11:30	Keynote – Chair: James Curran Optimizing Research Impact Through Interdisciplinary and Collaborative Research by Charmaine B. Dean	
12:20	Closing Ceremony	
12:40	Lunch	