

# #BIBC2025 Schedule

Please note that the times are indicative and may have some small variations.

## Tuesday

Start	Arc Cinema	Theatrette
08:15	Conference Registration	
08:45	Opening remarks and housekeeping	
09:05	<b>Keynote – Chair: Emi Tanaka</b> <b>On Finding Good Experiments</b> by <i>Cheng Soon Ong</i> (~09:05–09:55)	
10:00	<b>Session 1A – Chair: Garth Tarr</b>  <b>Data-Adaptive Automatic Threshold Calibration for Stability Selection</b> by <i>Martin Huang</i> (~10:00–10:20)  <b>Variable Selection in a Joint Model for Huntington’s Disease Data</b> by <i>Rajan Shankar</i> (~10:20–10:40)  <b>StableMate: a regression framework for selecting stable predictors across heterogeneous data environments</b> by <i>Yidi Deng</i> (~10:40–11:00)	<b>Session 1B – Chair: Scott Foster</b>  <b>Estimating abundance in small populations using pedigree reconstruction</b> by <i>Sarah Croft</i> (~10:00–10:20)  <b>Accounting for heterogeneous detection rates when inferring eradication of an invasive species</b> by <i>Sean A. Martin</i> (~10:20–10:40)  <b>Zero-inflated Tweedie distribution for abundance of rare ecological species</b> by <i>Nokuthaba Sibanda</i> (~10:40–11:00)
11:00	Morning Tea	
11:30	<b>Session 2A – Chair: Alan Welsh</b>  <b>Extending Spatial Capture-Recapture with the Hawkes Process</b> by <i>Alec B. M. van Helsdingen</i> (~11:30–11:50)  <b>A Test for Detecting Multiple Clusters with Hotspot Spatial Properties</b> by <i>Kunihiko Takahashi</i> (~11:50–12:10)	<b>Session 2B – Chair: James Curran</b>  <b>Group Sampling with Imperfect Testing for Biosecurity Applications</b> by <i>Adele Jackson</i> (~11:30–11:50)  <b>Koala Distribution and Abundance</b> by <i>Scott D. Foster</i> (~11:50–12:10)

(continued)

Start	Arc Cinema	Theatrette
	<b>Outlier-robust estimation of state-space models using a penalised approach</b> by <i>Garth Tarr</i> (~12:10–12:30)	<b>Speed: An R package for Spatially Efficient Experimental Designs</b> by <i>Julian Taylor</i> (~12:10–12:30)
	<b>Disease cluster detection via functional additive models incorporating spatial correlation</b> by <i>Michio Yamamoto</i> (~12:30–12:50)	<b>Running Human Subject Experiments via Online Crowdsourcing</b> by <i>Patrick Li</i> (~12:30–12:50)
12:50	Lunch	
13:50	<b>Invited Session: A Cluster of Modern Clustering Methods for Biometrics</b> – Chair: <i>Francis Hui</i>	<b>Session 3B</b> – Chair: <i>Ruth Butler</i>
	<b>Bayesian clustered ensemble prediction for multivariate time series</b> by <i>Shonosuke Sugasawa</i> (~13:50–14:20)	<b>Building Trust Without Peer Review: Establishing Reproducibility Standards in Industrial Statistical Consulting</b> by <i>Dean Marchiori</i> (~13:50–14:10)
	<b>The difficulties of clustering categorical or mixed data</b> by <i>Louise McMillan</i> (~14:20–14:50)	<b>Teaching Meta-Analysis for Systematic Reviewers with Mixed Statistical Training</b> by <i>Xu Ning</i> (~14:10–14:30)
	<b>Species archetype models for presence-only data</b> by <i>Skipton N.C. Woolley</i> (~14:50–15:20)	<b>Tales from the jungle: a personal perspective of statistical consulting since COVID</b> by <i>Alice Richardson</i> (~14:30–14:50)
		<b>Better Conversations, Better Support: Strengthening Consulting through Practical Education and Community</b> by <i>Sharon G. Nielsen</i> (~14:50–15:10)
15:20	Afternoon Tea	
15:50	<b>Session 4A</b> – Chair: <i>Zhanglong Cao</i>	<b>Session 4B</b> – Chair: <i>Graham Hepworth</i>
	(CANCELLED) <b>Nested-factorial treatment models: types, their uses and examples</b> by <i>Chris Brien</i> (~15:50–16:10)	<b>Enhancing Fraud Detection in Banking through Random Survival Forests: Addressing Data Imbalance and Model Transparency</b> by <i>Arjun Sekhar</i> (~15:50–16:10)
	<b>Integrating Spatial Data and On-Farm Experimentation to Understand Wheat Variety Performance Across Western Australia</b> by <i>Sandra K. Tanz</i> (~16:10–16:30)	<b>Using point cloud data to discover genomic regions associated with dynamic height</b> by <i>Colleen H Hunt</i> (~16:10–16:30)

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Start	Arc Cinema	Theatrette
	<b>Multi-environment trial analysis of count data with complex variance structures using generalised linear mixed models</b> by <i>Michael H. Mumford</i> (~16:30–16:50)	<b>Automatic debiased machine learning (autoDML) for causal inference: implementation and evaluation in real-world observational studies</b> by <i>Tong Chen</i> (~16:30–16:50)

## 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*

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Start	Arc Cinema	Theatrette
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**Wednesday**

Start	Arc Cinema	Theatrette
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08:20 Conference Registration

08:50 Housekeeping

08:55 **Keynote – Chair: Thomas Lumley**

**Uses of gnm for Generalized  
(Non)linear Modelling** by Heather L.  
Turner (~08:55–09:45)

09:50 **Session 5A – Chair: David Warton****Session 5B – Chair: Michael Mumford**

**Scalable finite mixture of regression  
models for clustering species  
responses in ecology** by Francis KC  
Hui (~09:50–10:10)

**Using a linear mixed model based  
wavelet transform to model  
non-smooth trends arising from  
designed experiments** by Clayton  
Forknall (~09:50–10:10)

**Elastic Net Regularization for  
Vector Generalized Linear Models: A  
Flexible Framework for  
High-Dimensional Biomedical Data**  
by Wenqi Zhao (~10:10–10:30)

**Functional Data Analysis for the  
Australian Grains Industry** by Braden  
J. Thorne (~10:10–10:30)

(CANCELLED) **Fitting Generalised  
Linear Mixed Models using  
Sequential Quadratic Programming**  
by Peter Green (~10:30–10:50)

**Bayesian Ordinal Regression for  
Crop Development and Disease  
Assessment** by Zhanglong Cao  
(~10:30–10:50)

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  
Mahdi Parsa (~11:20–11:50)

**Estimating extinction time from the  
fossil record using regression  
inversion** by David I. Warton  
(~11:20–11:40)

**Inferring the rate of undetected  
contamination using random effects  
modelling of biosecurity screening  
histories** by Sumonkanti Das and  
Robert Clark (~11:50–12:20)

**The performance of Yu and Hoff's  
confidence intervals for treatment  
means in a one-way layout** by Paul  
Kabaila (~11:40–12:00)

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Start	Arc Cinema	Theatrette
	<b>Optimal sampling in border biosecurity: Application to skip-lot sampling</b> by <i>Raphael Trouve</i> (~12:20–12:50)	<b>Rate-optimal sparse gamma scale mixture detection</b> by <i>Michael Stewart</i> (~12:00–12:20)  <b>Extension of the corrected score estimator in a Poisson regression model with a measurement error</b> by <i>Kentarou Wada</i> (~12:20–12:40)
12:50	Lunch	
13:00	Social Activities	
18:30	Young (at heart) Biometrician Social Event	

## Thursday

Start	Arc Cinema	Theatrette
08:20	Conference Registration	
08:50	Housekeeping	
08:55	<b>Keynote – Chair: Beatrix Jones</b> <b>Modularizing Biometric Models Facilitates Multistage Computing</b> by Mevin B. Hooten (~08:55–09:45)	
09:50	<b>Session 7A – Chair: Vanessa Cave</b> <b>Visualize your fitted non-linear dimension reduction model in the high-dimensional data space</b> by P. G. Jayani Lakshika (~09:50–10:10) <b>The geometry of diet: using projections to quantify the similarity between sets of dietary patterns</b> by Beatrix Jones (~10:10–10:30) <b>Multivariate meta-analysis methods for high-dimensional data</b> by Alysha M. De Livera (~10:30–10:50)	<b>Session 7B – Chair: Alice Richardson</b> <b>Reporting Odds Ratios under Fluctuating Reporting Rates in Spontaneous Reporting Systems</b> by Tatsuhiko Anzai (~09:50–10:10) <b>Handling Missingness in Prevalence Estimates from National Surveys</b> by Oyelola Adegboye (~10:10–10:30) <b>Pooled testing with penalized regression models</b> by Christopher Bilder (~10:30–10:50)
10:50	Morning Tea	
11:20	<b>Session 8A – Chair: Matthew Schofield</b> <b>Integrated Species Distribution Models: A Single-Index Approach</b> by Quan Vu (~11:20–11:40) <b>Simultaneous Inference for Latent Variable Predictions in Factor Analytic Models</b> by Zhining Wang (~11:40–12:00) <b>Model-based assessment of functional and phylogenetic diversity</b> by Shaoqian Huang (~12:00–12:20) <b>Fitting integrated species distribution models using mgcv</b> by Elliot Dovers (~12:20–12:40)	<b>Session 8B – Chair: Chris Triggs</b> <b>Crossvalidation for predictive models in complex survey data</b> by Thomas Lumley (~11:20–11:40) <b>A Set of Precise Asymptotics for Gaussian Variational Approximation in Generalised Linear Mixed Models</b> by Nelson J. Y. Chua (~11:40–12:00) <b>An allometric differential equation model quantifies energy trade-offs between growth and reproduction under temperature variation</b> by Hideyasu Shimadzu (~12:00–12:20) <b>A circular hidden Markov model for directional time series data</b> by A.A.P.N.M. Perera (~12:20–12:40)
12:40	Lunch	
12:50	AGM	
13:40	<b>Invited Session: Methods and Practice in Agricultural Analytics – Chair: Emi Tanaka</b>	<b>Session 9B – Chair: Sam Mason</b>

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Start	Arc Cinema	Theatrette
	<p><b>Evaluating the impact of trait measurement error on genetic analysis of computer vision-based phenotypes</b> by <i>Gota Morota</i> (~13:40–14:10)</p> <p><b>Predication of Daily Weight Gain with Cattle Behaviour and Daily Activity Using Triaxial Accelerometer Data</b> by <i>Shuwen Hu</i> (~14:10–14:40)</p> <p><b>Fishing for Heritability in the Gill Microbiome: Why Statisticians Should get out into the field</b> by <i>Elle Saber</i> (~14:40–15:10)</p>	<p><b>Do Mice Matter? The Impact of Mice on a New Zealand Ecosanctuary</b> by <i>Vanessa Cave</i> (~13:40–14:00)</p> <p><b>Modelling Species Diversity from Citizen-Science Bird Counts</b> by <i>Graham Hepworth</i> (~14:00–14:20)</p> <p><b>Continental-Scale Bayesian Analysis of Acacia Flowering Phenology: A Novel Framework Integrating Phylogenetic Signal and Circular Statistics</b> by <i>Owen Forbes</i> (~14:20–14:40)</p> <p><b>Spatio-Temporal Species Distribution Modelling</b> by <i>Sam Mason</i> (~14:40–15:00)</p>
15:10	Afternoon Tea	
15:40	<b>Session 10A – Chair: Julian Taylor</b>	<b>Session 10B – Chair: Oyelola Adegboye</b>
	<p><b>The <i>equalto</i> covariance structure for meta-analysis using the glmmTMB R package</b> by <i>Coralie C. Williams</i> (~15:40–16:00)</p> <p><b>A Proportional Random Effect Block Bootstrap for Highly Unbalanced Clustered Data</b> by <i>Zhi Yang Tho</i> (~16:00–16:20)</p> <p><b>Extending diagnostic validity meta-analysis to several diagnostic guidelines</b> by <i>Alain C. Vandal</i> (~16:20–16:40)</p>	<p><b>Risk of Guillain-Barré Syndrome after COVID-19 vaccination and SARS-CoV-2 infection: A multinational self-controlled case series study</b> by <i>Han Lu</i> (~15:40–16:00)</p> <p><b>Childhood Risk and Resilience Factors for Pasifika Youth Respiratory Health: Accounting for Attrition and Missingness</b> by <i>Siwei Zhai</i> (~16:00–16:20)</p> <p><b>A missing data detective story – how I navigated through a perfect storm of drop-out's, COVID and informative missingness.</b> by <i>Eve Slavich</i> (~16:20–16:40)</p>
18:30	Conference Dinner	

## Friday

Start	Arc Cinema	Theatrette
08:30	Conference Registration	
09:00	Housekeeping	
09:05	<b>Keynote – Chair: Louise McMillan</b>	
	<b>Saddlepoint approximations for likelihoods</b> by <i>Jesse Goodman</i> (~09:05–09:55)	
10:00	<b>Session 11A – Chair: Yidi Deng</b>	<b>Session 11B – Chair: David Baird</b>
	<b>False Discovery Rate Controlled Robust Variable Selection under Cellwise Contamination</b> by <i>Xiaoya Sun</i> (~10:00–10:20)	<b>Genstat Markdown: Reproducible Research with Genstat</b> by <i>James M. Curran</i> (~10:00–10:20)
	<b>A covariate-adaptive test for replicability across multiple studies with false discovery rate control</b> by <i>Dennis Leung</i> (~10:20–10:40)	<b>The 4S method for the longitudinal analysis of multidimensional questionnaires: application to Parkinson’s disease progression from patient perception</b> by <i>Tiphaine Saulnier</i> (~10:20–10:40)
	<b>A semi-supervised framework for diverse multiple hypothesis testing scenarios</b> by <i>Jack Freestone</i> (~10:40–11:00)	<b>heritable An R package for heritability calculations for plant breeding trials</b> by <i>Fonti Kar</i> (~10:40–11:00)
11:00	Morning Tea	
11:30	<b>Keynote – Chair: James Curran</b>	
	<b>Optimizing Research Impact Through Interdisciplinary and Collaborative Research</b> by <i>Charmaine B. Dean</i> (~11:30–12:20)	
12:20	Closing Ceremony	
12:40	Lunch	