

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

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

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| Start | Arc Cinema   | Theatrette   |
|-------|--|--|
| 08:20 | Conference Registration  |  |
| 08:50 | Housekeeping   |  |
| 08:55 | <b>Keynote – Chair: Thomas Lumley</b>  |  |
|       | <b>Uses of gnm for Generalized<br/>(Non)linear Modelling</b> by Heather L.<br>Turner (~08:55–09:45)  |  |
| 09:50 | <b>Session 5A – Chair: David Warton</b>  | <b>Session 5B – Chair: Michael Mumford</b>   |
|       | <b>Scalable finite mixture of regression<br/>models for clustering species<br/>responses in ecology</b> by Francis KC<br>Hui (~09:50–10:10)  | <b>Using a linear mixed model based<br/>wavelet transform to model<br/>non-smooth trends arising from<br/>designed experiments</b> by Clayton<br>Forknall (~09:50–10:10) |
|       | <b>Elastic Net Regularization for<br/>Vector Generalized Linear Models: A<br/>Flexible Framework for<br/>High-Dimensional Biomedical Data</b><br>by Wenqi Zhao (~10:10–10:30)            | <b>Functional Data Analysis for the<br/>Australian Grains Industry</b> by Braden<br>J. Thorne (~10:10–10:30)   |
|       | <b>(CANCELLED) Fitting Generalised<br/>Linear Mixed Models using<br/>Sequential Quadratic Programming</b><br>by Peter Green (~10:30–10:50)   | <b>Bayesian Ordinal Regression for<br/>Crop Development and Disease<br/>Assessment</b> by Zhanglong Cao<br>(~10:30–10:50)  |
| 10:50 | Morning Tea  |  |
| 11:20 | <b>Invited Session: Statistics for<br/>Biosecurity Surveillance – Chair:<br/>Robert Clark</b>  | <b>Session 6B – Chair: Linh Nghiem</b>   |
|       | <b>Optimal allocation of resources<br/>between control and surveillance for<br/>complex eradication scenarios</b> by<br>Mahdi Parsa (~11:20–11:50)                                       | <b>Estimating extinction time from the<br/>fossil record using regression<br/>inversion</b> by David I. Warton<br>(~11:20–11:40)   |
|       | <b>Inferring the rate of undetected<br/>contamination using random effects<br/>modelling of biosecurity screening<br/>histories</b> by Sumonkanti Das and<br>Robert Clark (~11:50–12:20) | <b>The performance of Yu and Hoff's<br/>confidence intervals for treatment<br/>means in a one-way layout</b> by Paul<br>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 Raphael Trouve<br>(~12:20–12:50) | <b>Rate-optimal sparse gamma scale mixture detection</b> by Michael Stewart<br>(~12:00–12:20) |
| 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 by Mevin B. Hooten (~08:55–09:45)</b>                                      |   |
| 09:50 | <b>Session 7A – Chair: Vanessa Cave</b>  | <b>Session 7B – Chair: Alice Richardson</b>   |
|       | <b>Visualize your fitted non-linear dimension reduction model in the high-dimensional data space by P. G. Jayani Lakshika (~09:50–10:10)</b> | <b>Reporting Odds Ratios under Fluctuating Reporting Rates in Spontaneous Reporting Systems by Tatsuhiko Anzai (~09:50–10:10)</b>   |
|       | <b>The geometry of diet: using projections to quantify the similarity between sets of dietary patterns by Beatrix Jones (~10:10–10:30)</b>   | <b>Handling Missingness in Prevalence Estimates from National Surveys by Oyelola Adegbeye (~10:10–10:30)</b>  |
|       | <b>Multivariate meta-analysis methods for high-dimensional data by Alysha M. De Livera (~10:30–10:50)</b>                                    | <b>Pooled testing with penalized regression models by Christopher Bilder (~10:30–10:50)</b>   |
| 10:50 | Morning Tea  |   |
| 11:20 | <b>Session 8A – Chair: Matthew Schofield</b>   | <b>Session 8B – Chair: Chris Triggs</b>   |
|       | <b>Integrated Species Distribution Models: A Single-Index Approach by Quan Vu (~11:20–11:40)</b>   | <b>Crossvalidation for predictive models in complex survey data by Thomas Lumley (~11:20–11:40)</b>   |
|       | <b>Simultaneous Inference for Latent Variable Predictions in Factor Analytic Models by Zhining Wang (~11:40–12:00)</b>                       | <b>A Set of Precise Asymptotics for Gaussian Variational Approximation in Generalised Linear Mixed Models by Nelson J. Y. Chua (~11:40–12:00)</b>                             |
|       | <b>Model-based assessment of functional and phylogenetic diversity by Shaoqian Huang (~12:00–12:20)</b>                                      | <b>An allometric differential equation model quantifies energy trade-offs between growth and reproduction under temperature variation by Hideyasu Shimadzu (~12:00–12:20)</b> |
|       | <b>Fitting integrated species distribution models using mgcv by Elliot Dovers (~12:20–12:40)</b>   | <b>A circular hidden Markov model for directional time series data by A.A.P.N.M. Perera (~12:20–12:40)</b>  |
| 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  |
|-------|--|---|
|       | <b>Evaluating the impact of trait measurement error on genetic analysis of computer vision-based phenotypes</b> by Gota Morota (~13:40–14:10)  | <b>Do Mice Matter? The Impact of Mice on a New Zealand Ecosanctuary</b> by Vanessa Cave (~13:40–14:00)  |
|       | <b>Predication of Daily Weight Gain with Cattle Behaviour and Daily Activity Using Triaxial Accelerometer Data</b> by Shuwen Hu (~14:10–14:40) | <b>Modelling Species Diversity from Citizen-Science Bird Counts</b> by Graham Hepworth (~14:00–14:20)   |
|       | <b>Fishing for Heritability in the Gill Microbiome: Why Statisticians Should get out into the field</b> by Elle Saber (~14:40–15:10)           | <b>Continental-Scale Bayesian Analysis of Acacia Flowering Phenology: A Novel Framework Integrating Phylogenetic Signal and Circular Statistics</b> by Owen Forbes (~14:20–14:40) |
|       |  | <b>Spatio-Temporal Species Distribution Modelling</b> by Sam Mason (~14:40–15:00)   |
| 15:10 | Afternoon Tea  |   |
| 15:40 | <b>Session 10A – Chair: Julian Taylor</b>  | <b>Session 10B – Chair: Oyelola Adegbeye</b>  |
|       | <b>The equalto covariance structure for meta-analysis using the glmmTMB R package</b> by Coralie C. Williams (~15:40–16:00)                    | <b>Risk of Guillain-Barré Syndrome after COVID-19 vaccination and SARS-CoV-2 infection: A multinational self-controlled case series study</b> by Han Lu (~15:40–16:00)            |
|       | <b>A Proportional Random Effect Block Bootstrap for Highly Unbalanced Clustered Data</b> by Zhi Yang Tho (~16:00–16:20)                        | <b>Childhood Risk and Resilience Factors for Pasifika Youth Respiratory Health: Accounting for Attrition and Missingness</b> by Siwei Zhai (~16:00–16:20)                         |
|       | <b>Extending diagnostic validity meta-analysis to several diagnostic guidelines</b> by Alain C. Vandal (~16:20–16:40)                          | <b>A missing data detective story – how I navigated through a perfect storm of drop-out's, COVID and informative missingness.</b> by Eve Slavich (~16:20–16:40)                   |
| 18:30 | Conference Dinner  |   |

**Friday**

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