

The Joint International Society for Clinical Biostatistics and Australian Statistical Conference 2018
Melbourne Convention and Exhibition Centre

Monday, 27 August 2018

Plenary Room 3

Plenary Session 1

09:00 - 09:30
Opening Ceremony

09:30 - 10:30
AMSI/SSA Invited Speaker
Susan Murphy

Stratified Micro-Randomized Trials with Applications in Mobile Health
Chair: John Carlin

Morning Tea, Exhibition & Poster Viewing
Main Foyer 3

Monday, 27 August 2018						
Plenary Room 3						
Plenary Session 1						
09:00 - 10:00						
09:00 - 09:30 Opening Ceremony						
09:30 - 10:30 AMSI/SSA Invited Speaker Susan Murphy Stratified Micro-Randomized Trials with Applications in Mobile Health Chair: John Carlin						
10:30 - 11:00						
Morning Tea, Exhibition & Poster Viewing Main Foyer 3						
Plenary Room 3		Meeting Room 216	Meeting Room 217	Meeting Room 218	Meeting Room 219	Meeting Room 220
IS1: Deep time-to-event analysis Chair: Nadine Binder		OC1: DNA, RNA and Methylation Analysis Chair: Kim-Anh Lê Cao	OC2: Nonparametric & Semiparametric Methods Chair: Paul Kabaila	OC3: Biostatistical Pot-pourri 1 Chair: Karen Lamb	OC4: Causal 1: Propensity Score and Related Methods Chair: Lyle Gurrin	OC5: Missing Data Methods 1 (Multilevel) Chair: Tim Morris
11:00	(Deep) survival analysis: prediction, understanding and causal inference Per Kragh Andersen	Statistical method to validate a targeted gene sequencing panel Roy Roy	Estimation of time-dependent ROC curves based on smoothing techniques Juan Carlos Pardo-Fernandez	Fast stable relative risk regression using an overparameterised EM algorithm Mark Donoghoe	Can We Train Machine Learning Methods to Outperform the High-dimensional Propensity Score Algorithm? Mohammad Ehsanul Karim	A multilevel multivariate model to analyse multiple correlated outcomes in clinical trials with missing data Victoria Vickerstaff
11:15		McSplicer: a probabilistic model for alternative splicing Heejung Shim	Empirical Likelihood-based Confidence Band in Length-biased Sampling Ali Shariati	The new alpha coefficient as a measure of the agreement for the multi-rater case María Álvarez	Extending the balance diagnostic plot for Inverse Probability of Treatment Weighting to time-varying treatment and confounding. Koen Simons	Multilevel Multiple Imputation for Incomplete Categorical Variables in Educational Research Helani Kottage
11:30	Combining deep generative models with statistical testing for data with time structure Harald Binder	DECENT: Differential Expression with Capture Efficiency adjustment for single-cell RNA-seq data Agus Salim	Bootstrapped confidence intervals for inequality measures arising from limited summary information Dilanka Shenal Dedduwakumara	Extended multivariate generalised linear and non-linear mixed effects models: One model might fit all Michael Crowther	Application of Marginal Structural Models to Unbalanced Longitudinal Health Data (clinical cohort): a simulation study Edmore Chamapiwa	A comparison of multiple imputation methods for analyzing incomplete longitudinal data when the analysis model of interest is a linear mixed model with random intercepts and slopes. Md Hamidul Huque
11:45		A Novel Bayesian Multiple Testing Approach to Deregulated miRNA Discovery Harnessing Positional Clustering Noirrit Kiran Chandra	Penalised likelihood estimation for semi-parametric accelerated failure time model with right-censored survival data Ding Ma	A futility analysis for a diagnostic study Martin Bland	Distance Correlation-Driven Caliper Choice in Propensity Score-Matched Analyses Adin-Cristian Andrei	Multiple imputation for handling missing values in longitudinal cohort studies with survey weights: a simulation study Anurika De Silva
12:00	Deep learning for episodic interventional data Truyen Tran	The Use of Truncated Multivariate Normal Distribution for Selective Inference of Differentially-Methylated Regions Punya Alahakoon	Iterative method for empirical likelihood with basis functions Andrew Locke	Assessment of the surrogacy of progression-free survival for overall survival in the presence of treatment switching in oncology trials Manjula Schou	The use of prognostic scores for causal inference with general treatment regimes Thomas Debray	Multiple Imputation of Missing Data in Multilevel Models Nidhi Menon
12:15		Enriched network decomposition (END) for genomic expression data James Doecke		Predicting Transition of Older Women into and Through the Aged Care System Over Time: A Multi-state Modelling Approach Using Aged Care Linked Data Md Mijanur Rahman		Multiple imputation for longitudinal continuous data via gradient boosting Yusuke Yamaguchi

12:30 - 13:30	Lunch, Exhibition & Poster Viewing Main Foyer 3						12:30 - 13:30
13:30 - 15:00	Poster Pitch Session Main Foyer 3						13:30 - 15:00
13:30 - 15:00	Plenary Room 3	Meeting Room 216	Meeting Room 217	Meeting Room 218	Meeting Room 219	Meeting Room 220	13:30 - 15:00
	<i>IS2: Recent developments and current challenges in statistical genomics</i> <i>Chair: David Balding</i>	<i>OC6: Bayesian Theory and Computation</i> <i>Chair: Sophie Zaloumis</i>	<i>OC7: Econometric Modelling & Related</i> <i>Chair: John Henstridge</i>	<i>OC8: Survival 1: Flexible Modelling</i> <i>Chair: Michael Crowther</i>	<i>OC9: Causal 2: Mediation and Instrumental Variables</i> <i>Chair: Stijn Vansteelandt</i>	<i>OC10: Adaptive Clinical Trials</i> <i>Chair: Lucinda Billingham</i>	
13:30	Selection against gene variants associated with educational attainment Augustine Kong	Adaptive Bayesian Shrinkage Estimation Using Log-Scale Shrinkage Priors Daniel Schmidt	Exploring a methodological approach for Statistical Impact Measurement (SIM) Oksana Honchar	Flexible Accelerated Failure Time Model in Survival Analysis Menglan Pang	Extending causal effect decomposition to multiple mediators in the presence of exposure-induced mediator-outcome confounding Lyle Gurrin	Designing a Bayesian adaptive trial with good frequentist properties: the example of a stroke trial Stephane Heritier	13:30
13:45		The role of Bayesian priors in Bayesian modelling and analysis Kerrie Mengersen	Functional cluster analysis on firm performances exploration Nurjannah Nurjannah	Flexible modeling of the cumulative effects of a sparsely measured continuous time-varying covariate in time-to-event analysis Yishu Wang	Understanding interventional effects: a more natural approach to mediation analysis? Margarita Moreno-Betancur	An ethical non-parametric design for selecting arms in a multi-arm clinical trial Thomas Jaki	13:45
14:00	Detecting relatedness with two different genetic markers using whole genome sequencing data from malaria-causing Plasmodium species Melanie Bahlo	Variational nonparametric discriminant analysis Weichang Yu	Revisiting the noise method for confidentialising tables of business data, a New Zealand example Wen Wen	Multidimensional penalized splines in hazard regression for time-to-event data Mathieu Fauvernier	Measurement error in longitudinal causal mediation analysis Murthy Mittinty	Guidance and Software for Implementing Bayesian Adaptive Designs J. Jack Lee	14:00
14:15		Now You See It? Now You Don't? The Role of Graphics as MCMC Diagnostics Nicholas Tierney	Hedonic Modelling using product characteristics to enhance the Consumer Price Index. Han Pham	Defining recovery from fatigue symptoms after naturally-occurring acute viral infection: comparisons using interval-censored and interpolated recovery time in flexible parametric survival models Erin Cvejic	Selection bias in instrumental variable analyses Rachael Hughes	The use of multi-arm, multi-stage designs in phase III cancer trials. Pankaj Mistry	14:15
14:30	Inferring Species Trees Using Integrative Models of Species Evolution Alexei Drummond	Fitting Multivariate Generalised Linear Mixed Models using Variational Bayes David Hughes	A novel Bayesian matrix analytic approach for small area estimation Azizur Rahman	Using model reduction techniques and a frailty model approach to predict the timing of subsequent primary melanomas in a population-based cohort. Caro Badcock	Using Mendelian randomization to identify causal interactions between risk factors Jessica Rees	Implementing efficacy stopping boundaries in a MAMS trial with an intermediate outcome measure: increasing efficiency and uptake Alexandra Blenkinsop	14:30
14:45		A Qualitative Approach to Inform Prior Distributions for Bayesian Confirmatory Factor Analysis Hao Zhang	Measuring the Likelihood of Out of Scope Responses for Research and Development Expenditure Thomas Davidson		The causative role of Serine and Glycine on Macular Telangiectasia - A Mendelian Randomization approach Roberto Bonelli	Bridging information across populations in early phase clinical trials in oncology. Adrien Ollier	14:45

15:00 - 15:30	Afternoon Tea, Exhibition & Poster Viewing Main Foyer 3						15:00 - 15:30
15:30 - 17:00	Poster Pitch Session Main Foyer 3						15:30 - 17:00
15:30 - 17:00	Plenary Room 3	Meeting Room 216	Meeting Room 217	Meeting Room 218	Meeting Room 219	Meeting Room 220	15:30 - 17:00
	<i>IS3: Statistical education - engaging future statisticians</i> Chair: Louise Ryan	<i>OC11: Causal 3: Genetic & Other Applications</i> Chair: Stephen Leslie	<i>OC12: High-dimensional Statistics for Genomics</i> Chair: Alexei Drummond	<i>OC13: Statistics in Epidemiology 1</i> Chair: Julie Simpson	<i>OC14: Machine Learning & Related</i> Chair: Dianne Cook	<i>OC15: Cluster-Randomised Trials</i> Chair: Karla Hemming	
15:30	How can data science improve statistics education? Deborah Nolan	Efficient variable selection to identify causal genetic variants and quantify their contribution to complex phenotypes Christian Benner	Fast unsupervised feature selection for quantitative biological data using mixture models Marcela Cespedes	Incidence of dementia over three decades: A multi-state model based reanalysis of the Framingham Heart Study Nadine Binder	Modeling wearable device data using deep Boltzmann machines Daniela Zöller	A meta-analysis inspired approach to analysing cluster crossover studies with ordinal outcomes Leonid Churilov	15:30
15:45		The use of genetic risk scores in causal association studies: a simulation study Md Jamal Uddin	Variable importance assessment and backward variable selection for high-dimensional data Lihua Peng	CT scan exposure before age 20 and cancer risk: using propensity scores to account for confounding by indication Jasmine McBain-Miller	Automated Classification of Post-Stroke Aphasia by Severity Tea Kristiane Espeland Uggen	How many crossovers in a cluster randomised crossover trial? Kelsey Grantham	15:45
16:00	On gaining iNZights, having your cake and eating it too Chris Wild	Methodology for estimating associations between SNPs and disease risk based on the maximum of the chi-squared statistic: an application to GWAS Fabián Cortés Muñoz	Hierarchical structural components models for integrative analysis of multi-omics data Taesung Park	Semiparametric model for short term effects of air pollution upon asthma symptoms exacerbations Marek Brabec [ISCB CASC award]	Trees with multivariate knots Jean-Michel Nguyen	Performance of semi-parametric estimation in cluster randomised crossover trials with a binary outcome Louise Marquart	16:00
16:15		Estimating treatment effects when everyone receives treatment: Investigating the effects of ivacaftor with the UK Cystic Fibrosis Registry Simon Newsome	Estimating tree topologies using phylogenetic distances: a new perspective Teresa Neeman	Sampling weights for computationally intensive methods using case-cohort designs in big data Emma C. Martin	SVM-CART for Disease Classification Mousumi Banerjee	Design effect reloaded - lower boundaries of the expected intracluster correlation coefficient in cluster randomized trials Tibor Schuster	16:15
16:30	Inspiring future statisticians!...or at least making statistics-haters outliers Peter Howley	Predictive cluster level surrogacy in the presence of interference: evaluation methods for surrogates of indirect and total effects motivated by surrogacy in transmission blocking malaria vaccine Erin Gabriel	A semiparametric compositional data analysis method for assessing differential expression and differential abundance in RNASeq and microbiome studies Olivier Thas	Estimating exposure-outcome associations in the presence of attrition due to death and non-attendance: a simulation study Myra McGuinness	Improved prediction of a nurse's agitation-sedation rating in relation to automated sedation infusion levels in intensive care: a copula approach. Ainura Tursunaliyeva	Sequential multiple assignment randomized trial for periodontal disease: sample size calculation based on cluster-level data using spatial model with informative missingness Jing Xu	16:30
16:45		Multivariate microbiome data analysis Kim-Anh Le Cao	Tobacco Smoking and the Risk of a Range of Cardiovascular Disease Subtypes: Fatal and Non-fatal Outcomes in a Large Prospective Study Grace Joshy		Re-evaluating methods for cluster randomised trials with binary outcomes and a small number of clusters: a simulation study Jennifer Thompson	16:45	
17:00 - 18:00	Welcome Reception Main Foyer 3						17:00 - 18:00

The Joint International Society for Clinical Biostatistics and Australian Statistical Conference 2018
Melbourne Convention and Exhibition Centre

Tuesday, 28 August 2018

Plenary Room 3

Plenary Session 2

09:00 - 09:45

ISCB President's Invited Speaker

Louise Ryan

Simple statistical strategies for the analysis of very large datasets

Chair: KyungMann Kim

09:45 - 10:30

ISCB Keynote Speaker

Thomas Lumley

Validation sampling for large health databases

Chair: KyungMann Kim

Morning Tea, Exhibition & Poster Viewing

Main Foyer 3

09:00 - 10:30

09:00 - 10:30

10:30 - 11:00

10:30 - 11:00

11:00

11:00

Plenary Room 3

Meeting Room 216

Meeting Room 217

Meeting Room 218

Meeting Room 219

Meeting Room 220

IS4: Statistical learning methods for causal inference
Chair: Margarita Moreno-Betancur

OC16: Statistics for High-dimensional Problems
Chair: Luke Prendergast

OC17: Mathematical Statistics & Probability
Chair: Natalia Bochkina

OC18: Statistics in Epidemiology 2
Chair: Armando Teixeira-Pinto

OC19: Topical Issues in Clinical Trials
Chair: Jessica Kasza

OC20: Spatio-temporal & Network Models
Chair: Nick Golding

11:00

11:00

How to obtain valid tests and confidence intervals after confounder selection?
Stijn Vansteelandt

Visualisation of EEG signal related to event-related potentials in assessing neural processing underlying mental rotation
Stanislav Katina

The large sample coverage probability of confidence intervals in general regression models after a preliminary hypothesis test
Rupert Kuveke

The genesis and use of time-varying frailty models for representing heterogeneities in the transmission of infectious diseases.
Niel Hens

Underestimation bias in sequentially monitored trials that do not stop early for benefit
Ian Marschner

Temporal Network Models to analyze the worldwide Trading of Arms
Goeran Kauermann

11:15

11:15

Visualisation of high-dimensional particle physics data
Dianne Cook

On asymptotic behaviour of weighted functionals of long-range dependent fields
Tareq Alodat

Bayesian variable selection in a matched case-control study: An application to food-borne disease outbreaks
Rianne Jacobs

Numbers needed to treat, responder analysis and overlap measures: caution!
Stephen Senn

Sequential Importance Sampling for Identifying clusters in Spatial Data
Nishanthi Raveendran

11:30

11:30

Nonparametric doubly-robust inference on the average treatment effect
Marco Carone

Estimators of Hurst parameter in long-range dependent curve time series: An empirical comparison
Han Lin Shang

The MDL principle gives a LASSO-like model selection criterion for logistic regression
James Dowty

Forecasting seasonal influenza using primary care surveillance data
Robert Cope

The application of design of experiments to precision medicine clinical trials
Kim May Lee

Hierarchical space-time modeling of exceedances with an application to rainfall data
Jean Noel Bacro

11:45

11:45

Assessing Alignment Between Functional Markers and Ordinal Outcomes
Amita Manatunga

Non-central asymptotics for vector random fields with differently distributed components.
Dareen Omari

Understanding influenza and IPD association from age-stratified surveillance counts
Chiara Chiavenna

Evaluation of Bayesian adaptive designs for phase III effectiveness trials
Elizabeth Ryan

Optimally weighted aggregations of satellite remote sensing data
Noel Cressie

12:00

12:00

Practical impact of data-adaptive estimation on the comparison of dynamic treatment regimens in diabetes care using EHR data
Romain Neugebauer

Pólya-gamma data augmentation and latent variable models for multivariate binomial data
John Holmes

Estimation of seasonal long memory parameters
Huda Alomari

Excess cancers following diagnostic CT scans in childhood and adolescence: how big is the causal effect?
Katrina Scurrah

Quantification of prior impact in Bayesian clinical trials in terms of prior effective sample size
Manuel Wiesenfarth

Modelling wind field variability over complex terrain with spatio-temporal dependence
Rachael Quill

12:15

12:15

Scalable and Robust Latent Trajectory Class Analysis to Explore Specific Prodromes of Dementia
John Hanfelt

Robust Detection of Covariate-Treatment Interactions in Clinical Trials
Mikhail Zaslavskiy

Application of the Cross-Entropy Method and Multiple Change-Point Detection for Epidemiological Data
Madawa W Jayawardana

Smaller clinical trials for decision making
Adrian Barnett

12:30 - 13:30

12:30 - 13:30

Lunch, Exhibition & Poster Viewing
Main Foyer 3

12:45 - 18:00

12:45 - 18:00

Conference Excursions
See website for exact timings

The Joint International Society for Clinical Biostatistics and Australian Statistical Conference 2018
Melbourne Convention and Exhibition Centre

Wednesday, 29 August 2018

Plenary Room 3						
Plenary Session 3						
09:00 - 10:30	<p>09:00 - 10:00 SSA Moran Lecturer Chris Holmes Bayesian learning at scale with approximate models Chair: Tim Brown</p> <p>10:00 - 10:30 Best of the best poster session Chair: Tim Brown</p>					09:00 - 10:30
10:30 - 11:00	<p>Morning Tea, Exhibition & Poster Viewing Main Foyer 3</p>					10:30 - 11:00
11:00	Plenary Room 3	Meeting Room 216	Meeting Room 217	Meeting Room 218	Meeting Room 219	Meeting Room 220
	<p>IS5: Analysis for highly complex data structures Chair: Noel Cressie</p>			<p>OC21: Environmental Statistics Chair: Graham Hepworth</p>	<p>OC22: Large-scale Analytics & Computing Chair: Damjan Vukcevic</p>	
11:00	<p>Non-Euclidean Statistics and Applications Stephan Huckemann</p>	<p>No sessions</p>	<p>No sessions</p>	<p>Assessing the accuracy of predictive models in the environmental sciences: what should we use? why? Jin Li</p>	<p>Tools for researchers and statistical consultants to aid reproducible workflows for data analysis and reporting Peter Baker</p>	<p>ISCB Annual General Meeting</p>
11:15				<p>Incorporating environmental factors into health technology assessment models Milena Castro</p>	<p>Using Google Trends data for epidemiological surveillance: Opportunities, pitfalls and methods Jacques Raubenheimer</p>	
11:30				<p>The Generalized Space Time Autoregressive Model on Hepatitis-A Cases in Jakarta Yekti Widyaningsih</p>	<p>A comparison of approaches to handling and analysing a large hierarchically structured dataset: Lessons and Learnings Kim Carter</p>	
11:45				<p>Modelling Tsetse Fly Abundance in South Africa: Comparison of 4 Generalized Linear Models Nada Abdalla Abdelatif</p>	<p>greta: simple and scalable statistical modelling in R Nick Golding</p>	
12:00				<p>On the estimation of negative binomial parameters from clustered occurrence data Wen-Han Hwang</p>	<p>Accounting Fraud Analytics for Effective Corporate Regulation Maria Jofre</p>	
12:15	<p>Analysing spatial patterns of events on a network Adrian Baddeley</p>			<p>Statistics to Preserve Australia's Heritage John Henstridge</p>		
12:30 - 13:30	<p>12:30 - 13:00 SSA AGM 13:00 - 13:30 ASPAI AGM</p>	<p>Lunch, Exhibition & Poster Viewing Main Foyer 3</p>				12:30 - 13:30

13:30	Plenary Room 3	Meeting Room 216	Meeting Room 217	Meeting Room 218	Meeting Room 219	Meeting Room 220	13:30
	<i>IS6: Topical issues in cluster-randomised trials</i> Chair: Andrew Forbes	<i>OC23: Mathematical Statistics</i> Chair: Neville Weber	<i>OC24: Survival 2: Complex Survival Analysis</i> Chair: Ronald Geskus	<i>OC25: Bayesian Methods: Applications</i> Chair: Nicholas Tierney	<i>OC26: Missing Data Methods 2</i> Chair: Jonathan Bartlett	<i>OC27: Longitudinal Analysis</i> Chair: Harald Binder	
13:30	Extending the I-squared statistic to describe treatment effect heterogeneity in cluster randomised trials Karla Hemming	Estimating the stable tail dependence function based on the empirical beta copula Laleh Tafakori	Joint longitudinal and time-to-event cure models to improve the assessment of being cured Antoine Barbieri	Inferring Extinction Probability of Species using Bayesian Modelling Saritha Kalhari Kodikara	Unexpected biases when using complete case analysis to estimate marginal effects Clemence Leyrat	Longitudinal analysis for a pre and a post randomization data with equal baseline assumptions Ikuko Funatogawa	13:30
13:45		The Hellinger dependence measure and its root-n estimation Pierre Lafaye De Micheaux	Joint longitudinal and time-to-event models for multilevel hierarchical data Sam Brilleman	Simulating the dynamics of sensitive and resistant severe malaria infections after treatment using Bayesian hierarchical modelling in Stan Sophie Zaloumis	Addressing missing data in studying the effect of maternal HIV on developmental outcomes of HIV-uninfected children Panteha Hayati Rezvan	A Comparison of Variable- and Personal-Oriented Statistical Approaches in Evaluating a Intervention Program Depeng Jiang	13:45
14:00	Biases in cluster randomized trials Bruno Giraudeau	Probability-based Optimal Designs to Deal with Separation Mohammad Lutfor Rahman	A joint model for longitudinal and interval-censored survival data in the context of diabetes and kidney graft histology Maarten Coemans	Bayesian variable selection based on clinical relevance weights in small sample studies - Application to colon cancer Sandrine Boulet	Using missing indicators to deal with partially observed covariate data Helen Blake	Quantifying temporal trends of age-standardised rates with odds Chuen Seng Tan	14:00
14:15		A robust analogue to the Coefficient of Variation Chandima Arachchige	A class of trend tests for time censored recurrent event data Jan Terje Kvaløy	Prior sensitivity for Bayesian linear mixed model for longitudinal data Oludare Ariyo	Multiple imputation in the presence of an incomplete binary variable created from an underlying continuous variable Anneke Grobler	Joint modelling of breast cancer tumour size and lymph node spread Gabriel Isheden [ISCB StCA winner]	14:15
14:30	Optimal incomplete stepped wedge designs in continuous time Richard Hooper	Evidence against the use of BIC-based model weights for tail area model averaged confidence intervals Paul Kabaila	Analysis of multistate data with realistic rate models and multiple time scales: A dogmatic approach Bendix Carstensen	Bayesian inference of disease incidence in two-phase two-wave studies including loss to follow-up and death: illustrated using dementia incidence in the UK MRC Cognitive Function and Ageing study Simon White	Imputation of missing covariates with interactions for the Cox proportional hazards model Axel Benner	Personalized dynamic predictions of a binary outcome based on repeated measurements: An application to neoplastic development in gestational trophoblastic disease Rana Dandis	14:30
14:45		A review of distance on functional datasets for likelihood-free inference Anthony Ebert	Correlated bivariate Normal competing risks - simulation findings in an ill-posed problem Malcolm Hudson	Bayesian nonparametric estimation of HRQoL from preference data, and a new utility measure for two condition-specific measures (Asthma and Overactive Bladder) Samer Kharroubi [ISCB CASc winner]		Extended Ordinary Log-Linear models: Gender specific study of Cloninger's TCI in relationship to Psychological distress Irene Hudson	14:45
15:00 - 15:30	Afternoon Tea, Exhibition & Poster Viewing Main Foyer 3						15:00 - 15:30

15:30	Plenary Room 3	Meeting Room 216	Meeting Room 217	Meeting Room 218	Meeting Room 219	Meeting Room 220	15:30
	<i>IS7: Spatio-temporal statistics in the environmental sciences</i> Chair: David Warton	<i>OC28: Meta-analysis 1</i> Chair: Joanne McKenzie	<i>OC29: Biostatistical Pot-pourri 2</i> Chair: Daniela Zöller	<i>OC30: Time Series and Forecasting</i> Chair: Han Lin Shang	<i>OC31: Statistical Methods for Precision Medicine</i> Chair: Susan Shortreed	<i>OC32: Clinical Trials Miscellany</i> Chair: Christina Yap	
15:30	Spatio-Temporal Analysis of Particulate Matter in Taiwan Hsin-Cheng Huang	Rethinking meta-analysis: addressing problems of non-transportability when combining treatment effects across patient populations Tat-Thang Vo [ISCB StCA winner]	When do analyses of randomised trials estimate causal effects? Jonathan Bartlett	The Estimation of Frequency in the Multichannel Sinusoidal Model Andrew Grant	Establishing optimal treatment selection rules based on observational studies Julia Krzykalla	Confidence interval of Vaccine Efficacy Yonghong Gao	15:30
15:45		Modelling multiple thresholds in meta-analysis to identify an optimal cut-off for the cerebrospinal fluid CXCL 13 in order to improve the diagnosis of acute Lyme neuroborreliosis Markus Pfirrmann	Using historical data to inform extrapolation decisions in children Ian Wadsworth	Forecasting annual incidence and mortality rate for prostate cancer in Australia until 2022 Arul Earnest	Optimal threshold estimation method for treatment selection markers Yoann Blangero	Rationale, design and analytical plan of the ASPREE-D sub-study: A randomized, controlled trial of low-dose aspirin for preventing depression in older persons Mohammadreza Mohebbi	15:45
16:00	Understanding the connections between some species distribution models Yan Wang	What works best? Methods for ranking competing treatments in network meta-analysis Adriani Nikolakopoulou	Post-hoc cluster analysis of multiscale trial data with varying record lengths Hannah Johns	Optimal bias-correction in the log-periodogram estimation of the fractional parameter: A jackknife approach Kanchana Nadarajah	Bayesian analysis and population-guided decision rules for an n-of-1 trial John Carlin	A simple relationship between power and expected confidence interval width Andrew Forbes	16:00
16:15		Network meta-analysis of diagnostic test accuracy studies allowing for multiple tests at multiple thresholds Rhiannon Owen	A Randomization Model for the Completely Randomized Design under the Generalized Linear Mixed Model Framework Zakir Hossain	Smoothing of Maximum Auto-correlation Factors using B-Splines with P-penalty Souveek Halder	Estimation and Optimization of Composite Outcomes Daniel Lockett [ISCB StCA winner]	What reasons do clinical trials give when they stop early for futility? An empirical survey of the literature. Stephen Walter	16:15
16:30	Spatio-temporal Latent Variable Models: A Potential Waste of Space and Time? Francis Hui	Bivariate network meta-analysis with second order consistency assumption and application to surrogate endpoint evaluation Sylwia Bujkiewicz	Modeling dose effect and cycle effect in dose finding studies of targeted agents Damien Drubay	Similarity measures for assessing non-stationarity of a time series Sourav Das	Online data challenges: the new catalysts for advancing cancer risk prediction Donna Ankerst	How the Fox Insight database of patient reported outcomes can inform clinical trial design for Parkinson's treatments Rochelle Tractenberg	16:30
16:45		Assessment of changes in Glomerular Filtration Rate across the life course in general population: a systematic review and mixed-effects meta-regression analysis Sifat Sharmin	A Two-Stage Model to Classify Patients into Lower Variability Resource User Groups Ashwani Kumar	Outlier Detection in Non-stationary Data Streams Priyanga Dilini Talagala	Dynamic borrowing of information using power priors in a pediatric setting Annette Kopp-Schneider	Adjustment methods for preserving the family wise error rate in sample size calculation and analysis of trials with multiple primary outcomes- a comparison of methods Rumana Omar	16:45
19:00 - 23:00	Conference Dinner Showtime Events Centre						19:00 - 23:00

The Joint International Society for Clinical Biostatistics and Australian Statistical Conference 2018
Melbourne Convention and Exhibition Centre

Thursday, 30 August 2018

09:00		Plenary Room 3	Meeting Room 217	Meeting Room 218	Meeting Room 219	09:00	Meeting Room 220		
		<i>IS8: Survey statistics (E.K. Foreman Lecture)</i> Chair: Paul Schubert	<i>OC33: Spatio-temporal Models in Epidemiology</i> Chair: Francis Hui	<i>OC34: Survival 3: Applications</i> Chair: Rory Wolfe	<i>OC35: Clinical Trials Design</i> Chair: Stephane Heritier		<i>Early Career Researchers' Day</i>		
09:00	<i>Statistical Disclosure Control: Where Do We Go From Here?</i> Natalie Shlomo	Spatial and Socio-Economic Factors on Dengue Fever Transmission in Makassar, Indonesia Sri Astuti Thamrin	Analysing time to event outcomes in cluster randomised trials using cluster-level analysis Md Anower Hossain [ISCB CASc winner]	Designing Dementia Trials Embedded Within a Cohort Mary Fortune	09:00	09:00	Introduction Daniela Zöller	09:00	
09:15		An efficient moments-based inference method for within-host bacterial dynamics David Price	A win ratio approach for comparing crossing survival curves in clinical trials Duolao Wang	Covariate-Adjusted Response-Adaptive Designs For Competing Risk Survival Models Ayon Mukherjee	09:15	09:10	Finding fruitful research areas – confessions of a London boy Tim Morris	09:10	
09:30		A spatial-temporal point process model for characterising locations of photo-switching fluorophores imaged in fluorescence microscopy Lekha Patel	A New Generalization of the Exponential Distribution with Application to Negatively Skewed Survival Data Sanku Dey	Adjusting Simon's two-stage design for heterogeneous populations using historical controls Dominic Edelman	09:30				
09:45		Nonparametric estimation of spatially varying disease risk Tilman Davies	Modern Robust Statistical Methods for Evaluation of Persistence of Ebola RNA in Semen of Ebola Virus Disease Survivors Ndema Habib	Hockey sticks and broken sticks - a design for a single-treatment, placebo-controlled, double-blind, randomized clinical trial suitable for chronic diseases Hans Hockey	09:45				
10:00		Invited Discussants: Christine O'Keefe Mark Cully	Comparing Spatio-Temporal models using CARBayes: An application to dengue fever in Makassar, Indonesia Aswi Aswi	Determining two optimal cut-points for a continuous predictor with right censored outcomes based on Cox regression model Yimin Chen	Familywise error control in multi-armed response-adaptive trials David Robertson	10:00	09:50	RLE plots: visualising unwanted variation in high dimensional data Luke Gandolfo	09:50
10:15			Combined test versus logrank/Cox test in 50 randomised trials Babak Choodari-Oskoei	Response-Adaptive Treatment Allocation for Clinical Studies with Ordinal Resopnses Ka Pui Chung	10:15	10:05	varameta: a collection and comparison of tools for meta-analysing medians Charles Gray	10:05	
						10:20	Discussion on contributed talks	10:20	
10:30 - 11:00	Morning Tea, Exhibition & Poster Viewing Main Foyer 3					10:30 - 11:00	10:30	Morning Tea, Exhibition & Poster Viewing Main Foyer 3	10:30

11:00	Plenary Room 3	Meeting Room 217	Meeting Room 218	Meeting Room 219	11:00
	<i>IS9: Recent developments in statistical precision medicine</i> Chair: Ian Marschner	<i>OC36: Survey Methods & Official Statistics</i> Chair: Dina Neiger	<i>OC37: Missing Data Methods 3</i> Chair: Amy Salter	<i>OC38: Meta-analysis 2</i> Chair: Sylwia Bujkiewicz	11:00
11:00	Sample size considerations for precision medicine Eric Laber	Integrating Big Data and Survey Data for Finite Population Inference Siu-Ming Tam	Comparing methods for imputing missing values in semi-continuous variables Cattram Nguyen	Developing and updating prediction models in large clustered data sets Valentijn Mt De Jong	11:00
11:15		The future of surveys in official statistics - a state space perspective Stephen Horn	Handling missing and misspecified covariates in an epidemiological cohort study Tugba Akkaya Hocagil	Meta-analysis of genome-wide association studies; increasing power to detect small effect variants Eleni Elia	11:15
11:30	Using electronic health records to target suicide prevention care Susan Shortreed	Distance bands and cluster size recording in bird surveys Helene Hoegsbro Thygesen	Constrained Maximum Penalised Likelihood Analysis for Competing Risks Data with Missing Failure Type Serigne Lo	Extending treatment ranking in network meta-analysis to account for clinical experience on treatment performance and credibility of the evidence Anna Chaimani	11:30
11:45		A method for transitioning between sample coordination schemes Claire Clarke, Rachel Barker	Using national data to reduce non-response bias in international educational surveys Martin Murphy	Using flow to estimate the percentage contribution of studies in network meta-analysis Theodoros Papakonstantinou	11:45
12:00	Selective inference for dynamic treatment regimes using the LASSO Ashkan Ertefaie	Estimation of Contingency Tables for Small Areas using Multi-level Loglinear Models Robert Clark	Missing outcomes in prediction model development: a comparison of multiple imputation and complete case analysis Laure Wynants	Using information-theoretic approaches for model selection in meta-analysis Ozan Cinar	12:00
12:15		Predictors of sample maintenance in a mixed mode social panel survey Spurti D'Souza			12:15
12:30 - 13:30	Lunch, Exhibition & Poster Viewing Main Foyer 3		Discussion on Statement of Action on Statistics in Health and Medical Research	Lunch, Exhibition & Poster Viewing Main Foyer 4	12:30 - 13:30

	Meeting Room 220	
11:00	<i>Early Career Researchers' Day</i>	11:00
11:00	Who are you and what do you expect of the day?	11:00
11:10	Navigating a high octane academic career in biostatistics – tips from an Aussie country girl Louise Ryan	11:10
11:50	In the pursuit of research happiness funding Susanna Cramb	11:50
12:05	Effective storytelling via data visualisation Emi Tanaka	12:05
12:20	Discussion on contributed talks	12:20
12:30 - 13:30	Lunch, Exhibition & Poster Viewing Main Foyer 3	12:30 - 13:30

13:30	Plenary Room 3	Meeting Room 217	Meeting Room 218	Meeting Room 219	
	<i>IS10: Robust Bayesian inference</i> Chair: <i>Kerrie Mengersen</i>	<i>OC39: Statistics in Epidemiology 3</i> Chair: <i>Per Kragh Andersen</i>	<i>OC40: Methods for Routinely Collected Health Data</i> Chair: <i>Adrian Barnett</i>	<i>OC41: Clinical Trials: Early-Phase & Novel Analysis</i> Chair: <i>Sabine Braat</i>	13:30
13:30	Robustness of Bayesian inference for nonregular constrained ill-posed models Natalia Bochkina	Comparing continuous and continuous-ordinal regression models for quality of life outcomes Annette Kifley	Use of a cohort stepped-wedge cluster quasi-experimental design to detect and control for bias and confounding in the analysis of large administrative datasets: a clinical example and simulation study. Jonathan Williman	Bayesian and Frequentist Models for Extrapolation of Event Rates for Safety and Efficacy Data in Clinical Trials Marek Ancukiewicz	13:30
13:45		Bootstrap based selection of the number of cut points in a logistic regression model: application to patients with COPD Irantzu Barrio	Monitoring healthcare performance by standardised mortality ratios Richard Bailey	Retrospective machine learning subgroup analysis for RCTs with an application to understanding the anti-malarial mode of action of Artemisinin in severe malaria James Watson	13:45
14:00	Robust inference using power posteriors: Calibration and inference Jeffrey Miller	Design characteristics and statistical methods used in interrupted time series studies evaluating public health interventions Simon Turner	Postmarket Surveillance of Medical Devices: Methodological Challenges Marianne Gillam	The use of interval based phase I designs in rare diseases Stefania Galimberti	14:00
14:15		Multilevel Regression and Poststratification: A modelling approach to estimating population quantities from highly selected survey samples Marnie Downes	Using General Practice Patient Records in Medical Research Sharm Thuraisingam	Accuracy, Safety and Reliability of Novel Phase I Trial Designs Ying Yuan	14:15
14:30	Model Misspecification in Approximate Bayesian Computation: Consequences and Diagnostics David Frazier	The utility of risk estimation and risk prediction models: decision curves and determining an optimal risk cutoff Roger Marshall	Evaluating The Effects of Isoniazid Preventive Therapy (IPT) on HIV/AIDS Disease Progression Using Non-Homogeneous Semi-Markov Process Collins Odhiambo	Latent variable modelling to improve the efficiency of composite endpoint analysis Martina Mcmenamini	14:30
14:45				Combining treatment groups in exploratory analyses of data from randomised clinical trials Jennie Louise	14:45
15:00 - 15:30	Afternoon Tea, Exhibition & Poster Viewing Main Foyer 3				15:00 - 15:30

13:30	Meeting Room 220	13:30
	<i>Early Career Researchers' Day</i>	
13:30	SC presentation Myra Mcguinness	13:30
13:40	Statistical Consulting: Active Listening, not Talking Nicole Close	13:40
14:20		Challenges of statistical research in Indonesia to reduce the maternal and neonatal mortality Dewi Anggraini
14:35	Forecasting electricity demand in Victoria using Artificial Neural Networks and Regression methods Thilaksha Silva	14:35
14:50	Discussion on contributed talks	14:50
15:00	Afternoon Tea, Exhibition & Poster Viewing Main Foyer 3	15:00

15:30	Plenary Room 3	Meeting Room 217	Meeting Room 218	Meeting Room 219	15:30	15:30	Meeting Room 220	15:30	
	<i>IS11: ST</i> ngthening Analytical Thinking for Observational Studies: Contributions of the STRATOS initiative to analyses of studies with measurement error and time-to-event data Chair: Katherine Lee	<i>OC42: Statistical Miscellany</i> Chair: Sue Finch	<i>OC43: Statistical Modelling</i> Chair: Stephen Horn	<i>OC44: Longitudinal and Correlated Data</i> Chair: Simon White			<i>Early Career Researchers' Day</i>		
15:30	Survival models for observational studies: issues and recommendations. Terry Therneau	A User-Friendly Interface for Outlier Detection in Physical Activity Step Counts. Sandun Silva	Repairing a sample due to biased non-response Daniel Fearnley	A Zero-Inflated Poisson latent class mixed model for the identification of longitudinal profiles of environmental and occupational exposure intensities in epidemiological studies Emilie Leveque	15:30	15:30	Innovate statistical fine-mapping in the era of biobank-scale data Christian Benner	15:30	
15:45		Statistical issues arising from the Royal Commission into Institutional Responses to Child Sexual Abuse Graham Hepworth	Improving estimates from non-probability online surveys Andrew Ward	Correlated multi-state models for multiple processes: An application to renal disease progression in systemic lupus erythematosus Aidan O'Keeffe	15:45	15:45	Model checking for hidden Markov models with extra zeros Jodie Buckby	15:45	
16:00	Assessing non-linear and time-dependent effects of a sparsely measured time-varying covariate Yishu Wang	Statistical Consulting Theory and Practice - The Challenge of Diversity Anna Hayes (munday)	Multilevel Modelling of Key Performance Indicators Stephen Lane	Improving causal graph structure learning for longitudinal markers by integrating a priori knowledge and impact of the structure learning method hypothesis Vahe Asvatourian	16:00	16:00	Discussion on contributed talks	16:00	
16:15		Resampling-based stability investigations after variable selection Christine Wallisch	Longitudinal Data Analysis for Improving Patient Outcomes Following Hip Replacement Surgery Bethany Phipps	16:15	16:15	General Discussion	16:15	16:15	
16:30	A new longitudinal measurement error model with application to physical activity assessment instruments in a large biomarker validation study Victor Kipnis	Statistical Process Control in Quality Assurance of Inpatient Care Lena Hubig	Is "underdispersion" underestimated? Chikako Van Koten	Flexible parametric modelling of the association between longitudinal food allergy status and growth in weight for Australian children in the first six years of life. Elasma Milanzi	16:30		16:45	16:45	16:45
16:45		Handling Ties in Ranks in the RO-logit Model Yilin Ning	Observation driven Conway-Maxwell Poisson count data models Thomas Fung	16:45	16:45	16:45	16:45	16:45	
17:00 - 17:30	Plenary Room 3 Closing Ceremony (including SSA Pitman Prize Awards)								17:00 - 17:30