Monday 5 December 2016
ASC Conference Program
SSA Only
Day 1

BIG DATA: MINING, ANALYSING, TEACHING
AUSTRALIAN STATISTICAL
CONFERENCE 2016
5-9 DECEMBER 2016, CANBERRA

Room	National Ballroom 1 & 2	National Ballroom 3	National Ballroom 4	High Courtyard North	High Courtyard South	
0730 - 0830	REGISTRATION					
0830 - 0900	**ASC 2016 Opening Ceremony** **Prof Deep Saini** **Chairperson: Bill Gross**					
0900 - 1000	**Keynote Speaker (SSA)** **Sue Wilson - Moran Lecture** The Ongoing Influence of Genetics/omics on Advances in Statistical Science **Chairperson: John Henstridge**					
1000 - 1100	**Keynote Speaker (SSA)** **Jae-Kwang Kim - Foreman Lecture** Some recent topics on informative sampling **Chairperson: Siu-Ming Tam**					
1100 - 1130	MORNING TEA					
	SSA Program - New Methods in Survey Sampling	**SSA Program - Longitudinal Data Analysis 1**	**SSA Program - Spatial and Spatio-Temporal Statistics 1**	**SSA Program - Bioinformatics and Genetics 1**	**SSA Program - Extreme Value Analysis**	
	Chairperson: Robert Clark	**Chairperson: Alice Richardson**	**Chairperson: Hsin-Cheng Huang**	**Chairperson: Samuel Mueller**	**Chairperson: Michael Stewart**	
1130 - 1200	**Philip Bell** Some interesting uses of Generalised Regression in survey weighting	**Francis Hui** Sparse pairwise likelihood estimation for multivariate longitudinal mixed models	**Andrew Zammit-Mangion** Spatial modelling and prediction with big data using two-scale Gaussian Markov random fields	**Malathi Sajeewani Imiyage Dona** Powerful differential expression analysis incorporating network topology for next-generation sequencing data	**Peter Julian Cayton** Estimating climatological extremes of storms with application to storm systems in the western pacific basin	1130 - 1148
		Pauline Ding Variance inference on the variance components for longitudinal data using bootstraps	**Francky Fouedjio** A non-parametric clustering approach for multivariate geostatistical data	**Kevin Wang** An interactive adjustment method for gene set overrepresentation in boutique arrays	**Huidong Jin** Automating extreme value threshold selection	1148 - 1206
1200 - 1230	**Stephen Haslett** Positive semidefiniteness of estimated covariance matrices in linear models for sample survey data	**Rheanna Mainzer** The effect of a hausman pretest on confidence intervals	**Mahmoud Torabi** Hierarchical multivariate mixture generalized linear models for the analysis of spatial data	**Shila Ghazanfar** Statistical approaches to address unique challenges of single cell rna-sequencing data	**Boris Beranger** On some features of the skewed families of max-stable processes	1206 - 1224
1230 - 1300	**Robert Clark** Generalized linear models under response dependent sampling		**Yuta Kamiya** The smoothing method of line segments with bayesian techniques	**Devindri Perera** Disease risk prediction for multiple sclerosis from snp gwas data.	**Sandy Burden** Exceedance set prediction for spatial environmental processes	1224 - 1242
			Thomas Suesse Maximum likelihood estimation of spatial autoregressive models with measurement errors for large data sets	**Georgia Tsambos** Accounting for phenotypic diversity in case-control studies of genetic association		1242 - 1300
1300 - 1400	LUNCH					

	SSA Program - Advances in Bayesian Computation	SSA Program - Risk Prediction	SSA Program - Official Statistics	SSA Program - Statistical Modelling 1	SSA Program - Epidemiology	
	Chairperson: Renate Meyer	Chairperson: Petra Macaskill	Chairperson: Gwenda Thompson	Chairperson: Paul Kabaila	Chairperson: Michael Adena	
1400 - 1430	**Scott Sisson** New Models for Symbolic Data	**1400 - 1420: Jennie Louise** Prediction of preterm birth: practical considerations in development of statistical prognostic models	**Stephen Horn** The future role for surveys in official statistics	**Muhammad Shuaib Khan** Transmuted generalized rayleigh distribution with application	**Kevin Wang** Statistical challenges in a multi-centre case-control study: protective and risk factors for pertussis infection in infants in NSW	1400 - 1418
		1420 - 1440: Agus Salim Risk prediction methods using nested case-control data	**Yan-Xia Lin** Statistical information recovery from noise-multiplied data, a computational approach	**Charles Au** Application of a modified multivariate skew-t distribution to regression modelling	**Shu-Kay Angus Ng** Identification of comorbid health conditions	1418 - 1436
1430-1500	**Kerrie Mengersen** A principled experimental design approach to big data analysis	**1440 - 1500: Rory Wolfe** External validation of risk prediction models	**Andreas Mayer** Trading day adjustments in SEASABS	**Haydar Demirhan** A new pseudo coefficient of determination for generalized linear models	**Hassan Assareh** Spatial variation in multi-morbidity and healthy life expectancy	1436-1454
1500-1530	**Minh-Ngoc Tran** Computationally Efficient Bayesian Estimation of High Dimensional Copulas with Discrete and Mixed Margins	**1500 - 1520: Mark Woodward** Cardiovascular risk scores: is validation a valid concept?	**Peter Ellis** Monthly regional tourism estimates for New Zealand	**Muhammad Shuaib Khan** Transmuted kumaraswamy burr xii distribution with application	**Berwin Turlach** How much savings would you like to have with this?	1454-1512
		1520 - 1530: Questions for all speakers	**Michael Webster** A framework for assessing price index methods for use with transactions data	**Thomas Porter** Higher criticism: an alternate interpretation	**Sarah Pirikahu** Dancing along the ridge: bayesian estimation of non-identifiable models for population attributable measures in epidemiology	1512-1530
1530 - 1600	**AFTERNOON BREAK**					

	SSA Program - Joe Gani Memorial	SSA Program - Medical Statistics 1	SSA Program - Nonparametric Statistics	SSA Program - Functional Data Analysis		
	Chairperson: Alan Welsh	Chairperson: Mark Griffin	Chairperson: Gary Glonek	Chairperson: Pauline Ding		
1600 - 1730	**Speakers given in abstract**	**Brigid Betz-Stablein** Modelling of retinal pulsatile blood flow from video data	**Olivier Thas** Powerful nonparametric large-scale hypothesis testing	**Yang Yang** Hierarchical functional time series forecasting with applications		1600 - 1618
		James Doecke Prescreening biomarkers for clinical trials: feature selection and model prediction using four well known statistical methods	**Ursula U. Müller** Estimating the error distribution in a single-index model	**Gery Geenens** Depth-based nonparametric tests for homogeneity of functional data		1618 - 1636
		Sabine Braat Adjusting for cluster-level minimisation factors in the analysis of cluster randomized controlled trials – the accept study	**Zengyan Fan** Interquantile shrinkage in additive models	**Han Lin Shang** A robust functional time series forecasting method		1636 - 1654
		Kanae Takahashi An exact method for comparing predictive values of two binary diagnostic tests	**Rachael Quill** The sensitivity of kolmogorov-smirnov style tests: a simulation study	**Yuan Gao** Multivariate functional time series forecasting: an application to age-specific mortality rates		1654 - 1712
			Takuma Yoshida Nonparametric smoothing for extremal quantile regression with heavy tailed data			1712 - 1730

1730 - 1900	**WELCOME RECEPTION - Level 1 Foyer, Hotel Realm**

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Tuesday 6 December 2016
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SSA & AusDM Program Streams
Day 2

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Room	National Ballroom 4	Room	National Ballroom 1 & 2	National Ballroom 3	High Courtyard North	High Courtyard South	
0730 - 0830	REGISTRATION						
0830-0900			**AusDM Opening Ceremony** **Frances Shannon** **Chairperson: Dharmendra Sharma**				
0900 - 1000			**Keynote Speaker (AusDM)** **Xue Li** Opinion Search Engine **Chairperson: Warwick Graco**				
1000 - 1100			**Keynote Speaker (SSA)** **David Kalisch - Knibbs Lecture** 'Big Data', Official Statistics and National Statistical Offices **Chairperson: Robert Clark**				
1100 - 1130	MORNING TEA						
	AusDM Program - Predictive Analytics **Chairperson: Yanchang Zhao**		**SSA Program - Directions in Official Statistics** **Chairperson: Stephen Horn**	**SSA Program - Bayesian Statistics 1** **Chairperson: John Carlin**	**SSA Program - Environmental Statistics** **Chairperson: Francis Hui**	**SSA Program - Statistical Modelling 2** **Chairperson: Luke Prendergast**	
1130 - 1150	**Xingjun Ma, Chunping Li and James Bailey** Finding Influentials in Twitter: A Temporal Influence Ranking Model	1130 - 1300	**Panel Discussion**	**Murray Aitkin** Problems with predictive distributions	**Jennifer Brown** Gap based inverse sampling	**Yan Liang (Jarod) Lee** Multinomial mixed model via extended "poisson trick"	1130 - 1148
1150 - 1210	**Zhihong Lin, Huidong Jin, Bella Robinson and Xunguo Lin** Towards an accurate social media disaster event detection system based on deep learning and semantic representation			**Lauren Kennedy** Not every credible interval is credible: on the importance of robust methods in bayesian data analysis	**Teresa Neeman** Estimating population structure in the presence of varying environmental exposures	**Joshua Bon** Monotone polynomials in constrained mixed effects models	1148 - 1206
1210 - 1230	**Asso Hamzehei, Jiang Qiang, Raymond Wong, Danai Koutra and Fang Chen** TSIM: Topic-based Social Influence Measurement for Social Networks			**Guilherme Rodrigues** Likelihood-free approximate gibbs sampling	**Jin Li** Assessing the accuracy of spatial predictive models in the environmental sciences	**Hwan-Jin Yoon** Hglms: a unified random effects models	1206 - 1224
				Xin Lei Dynamic non-parametric bayesian models using finite mixtures	**Gordana Popovic** Modelling flooding levels in a wetland with partially missing rain gauge data	**Elasma Milanzi** Using over-dispersion models to account for heterogeneity of effects in the meta-analysis of sparse count data	1224 - 1242
1230 - 1250	**Yichen Hu, Peter Christen and Qing Wang** Regression classification for improved temporal record linkage			**Thais Rodrigues** Pyramid quantile regression	**Eve Slavich** Uncertainty in climate variables: does measurement error explain differences in species predictions when climatic predictors are obtained at different spatial scales?	**Alan Huang** Log-linear conway-maxwell-poisson models for dispersed counts	1242 - 1300
1300 - 1400	LUNCH						

		AusDM Program - Visualization Techniques			SSA Program - Measurement Error Modelling in the Environmental Sciences	SSA Program - Bioinformatics and Genetics 2	SSA Program - Missing and Incomplete Data	SSA Program - Health and Social Statistics	
		Chairperson: Glenn Stone			**Chairperson:David Warton**	**Chairperson: Nicola Armstrong**	**Chairperson: Bill Gross**	**Chairperson: Sue Finch**	
1400 - 1420		**Mojgan Ghanavati, Raymond Wong, Simon Fong and Fang Chen** Augmenting Classification with Support Vector Regression for Boosting Financial Forecasting Returns		1400 - 1430	**Louise Ryan** Impact of Measurement Error in Spatial Epidemiology	**Kim-Anh Do** Shared informative factor models for integration of multi-platform bioinformatic data	**Stephen Haslett** "What about the zeros?": parameter inestimability in hierarchical loglinear models for sparse contingency tables	**Mossamet Kamrun Nesa** Small area estimates for cross-classified health indicators in New Zealand: an application of multinomial logit mixed model	1400 - 1418
1420 - 1440		**Chao Sun and David Stirling** Revisiting and Extending the X-of-N Decision Tree Approach for Event Based Time Series Analysis				**Conrad Burden** Stationary distribution of the multi-allelic neutral wright-fisher model for low mutation rates	**Helani D. Kottage** Multiple imputation for missing categorical variables in multilevel data: a comparison study of multiple imputation methods and software packages	**Kelleigh Forster** Modelling and visualising student post-school outcomes	1418 - 1436
				1430 - 1500	**Jakub Stoklosa** Measurement Error Modelling in Capture-recapture Studies	**Damjan Vukcevic** Meta-analysis with a general genetic model: assessing the effect of the ACTN3 gene on athletic performance	**Anurika P De Silva** A comparison of multiple imputation methods for handling missing values in longitudinal data in the presence of a time-varying covariate with a non-linear association with time: a simulation study	**Sadie Law** Hospital admitted patient expenditure by disease and age: 2004-05 to 2012-13	1436 - 1454
1440 - 1500		**Ikram Ul Haq, Iqbal Gondal, Peter Vamplew and Robert Layton** Generating Synthetic Datasets for Experimental Validation of Fraud Detection				**Julia Polak** Statistical modeling of gene expressions for prostate cancer patients and controls	**Jemishabye Apajee** Multiple imputation stategies for handling missing data in composite scores with incomplete items	**Xiaoxin Iris Yao** Systematic evaluation of factors associated with health-related quality of life: a high-dimensional multivariate multilevel analysis in the family cohort	1454 - 1512
1500 - 1520		**Jan Outrata and Martin Trnecka** Running Boolean Matrix Factorization in Parallel		1500 - 1530	**Scott Foster** Measurement Error in Ecology: What is it? When it is Ignorable?		**Weichang Yu** Semisupervised learning using quadratic discriminant analysis and variational bayes	**Paul Yacobellis (presented by Grant Leslie)** Socio-economic profiling in gis	1512 - 1530
1530 - 1600		**AFTERNOON BREAK**							
		AusDM Program - Social Network Analysis			SSA Program - Peter Hall Memorial	SSA Program - Sample Surveys	SSA Program - Time Series and Forecasting	SSA Program - Survival Analysis and Biostatistics	
		Chairperson: Nandita Sharma			**Chairperson: John Henstridge**	**Chairperson: Robyn Attewell**	**Chairperson: Scott Foster**	**Chairperson: Philip McCloud**	
1600 - 1620		**Bo Cui and Alice Richardson** Factors influencing Australian teachers' intent to leave the teaching profession				**Andrew Ward** Non-response adjustments and back-casting of estimates for a general community survey	**Peter Ellis** Prediction intervals for ensemble time series forecasts	**Kasun Rathnayake** Penalized likelihood parameter estimation for additive hazard models with partly-interval censored data	1600 - 1618
1620 - 1640		**Graham Webster, Denny Meyer, Peter Newton and Steven Glackin** Residential Redevelopment of Greyfield Suburbs: Determinants of Medium Scale Redevelopment		1600 - 1730	**Speakers given in abstract**	**Peter Byron** A comparison of estimators for the Australian labour force survey	**Sweta Patel** Time series and forecasting in air quality data of Ahmedabad City in Gujarat, India: a time series study	**Margarita Moreno-Betancur** Survival analysis with multiple continuous time-dependent covariates subject to measurement error or missing data	1618 - 1636
1640 - 1700		**Jie Chen, Wei Kang, Jiuyong Li, Jixue Liu, Lin Liu, Brenton Cooper, Nick Lothian, Grant Osborne and Terry Moschou** A Temporal Classification based Predictive Model of Recurring Societal Events				**James Brown** Exploring future population estimation: linking administrative data with surveys	**Thomas Fung** Semiparametric generalized linear models for time-series data	**Sam Brilleman** Bayesian joint models for multiple longitudinal biomarkers and time-to-event data: methods and software development	1636 - 1654
						Susan Shaw Relative savings in survey enumeration costs as online form uptake increases: insights from simulation	**Souveek Halder** Selecting the number of maximum autocorrelation factors: a comparative study	**Carl Scarrott** Summarising censored survival data using the mean residual life function	1654 - 1712
1700 - 1720		**Md Nasim Adnan and Zahid Islam** Knowledge Discovery from a Data Set on Dementia through Decision Forest				**Daniel Fearnley** Responsive Design in the 2014 National Health Survey	**Peter Julian Cayton** A bootstrapped mortality forecasting methodology	**Daniel Gerhard** Identification of the minimum effective dose using a model selection approach	1712 - 1730

1830 - 2130	**YOUNG STATISTICIANS DINNER - The Kingston Hotel**
1900	**AUSTRALIAN MATHEMATICAL SOCIETY PUBLIC LECTURE** **Terry Speed** **THE LIFE AND WORK OF PETER GAVIN HALL - Manning Clark Centre, Lecture Theatre 1**

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Wednesday 7 December 2016
ASC Conference Program
SSA & AusDM Program Streams
Day 3

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Room	National Ballroom 4	Room	National Ballroom 1		National Ballroom 2	National Ballroom 3	High Courtyard North	High Courtyard South	
0730 - 0830	REGISTRATION								
0830 - 0930			Keynote Speaker (SSA) Ming-Yen Cheng Hypothesis Testing in High Dimensions Chairperson: Alan Welsh						
0930 - 1000			SSA Awards Presentation Pitman Medal, Life Membership and Service Awards Chairperson: John Henstridge						
1000 - 1100			Keynote Speaker (AusDM/SSA) Bill Cleveland Divide & Recombine with DeltaRho for Bigger Data and Higher Computational Complexity Chairperson: Nick Fisher						
1100 - 1130	MORNING TEA								
	AusDM Program - Unsupervised Methods (including clustering, association mining and other unsupervised techniques)		AusDM Student Presentations – 2015 Prize Winning Projects		SSA Program - Mining and Analysis of Massive Omics Data	SSA Program - Medical Statistics 2	SSA Program - Risk Analysis and Risk Management	SSA Program - Graphical Models and Networks	
	Chairperson: David Stirling		Chairperson: Andrew Stranieri		Chairperson: Sue Wilson	Chairperson: Sabine Braat	Chairperson: Anna Munday	Chairperson: Jessica Kasza	
1130 - 1150	Dang Nguyen, Binh Nguyen, Dharmendra Sharma, Dat Tran and Wanli Ma EEG Biometric-Based Cryptographic Key Generation	1130 - 1300	1st PRIZE: Alasdair Tran and Lee Wei Yen Professor Peter Christen Institution: Australian National University 2nd PRIZE: Chenchen Xu and Qiongkai Xu Dr Gabriela Ferraro Institution: Australian National University 3rd PRIZE: Mohamed Fayaz Ali Maryam Dehghanian Dr Mehmood Chadhar Institution: Federation University	1130 - 1200	David Balding Investigating the genetic architecture of complex disease through genome-wide statistical models	Robert Mahar Model-based estimation of the lung clearance index	Ross Maller A recidivism risk prediction instrument based on survival analysis with long--term survivors	Marco Reale Edge deletion tests in graphical models for multivariate time series	1130 - 1148
1150 - 1210	Trung Pham Duy, Dat Tran and Wanli Ma Ownership protection based on optimized watermarking for biomedical and health systems in data mining					Samuel Mueller Cox regression with exclusion frequency-based weights to identify neuroimaging markers relevant to huntington's disease onset	Zahirul Hoque Comparison of several estimators of regression model under asymmetric loss criterion	Jonathan Tuke Random network residuals	1148 - 1206
1210 - 1230	Alireza Moayedikia, Kok-Leong Ong and Yee Ling Boo Segregator ant colony optimization with application to text clustering			1200 - 1230	Kim-Anh Le Cao Multivariate integration of multiple biological datasets	Marcela Cespedes Fast wombled approaches to detect spatial neurodegeneration consistent with progression towards alzheimer's disease	Steve Lane When does poor governance presage biosecurity risk?	Ian Wood Boltzmann machines for mixed data	1206 - 1224
1230 - 1250	Muhammad Ahmad, Juvaria Tariq, Muhammad Farhan, Mudassir Shabbir and Imdad Ullah Khan Who Should Receive the Vaccine?			1230 - 1300	Nicola Armstrong Investigating non-linear associations in high dimensional 'omics data'	Noelle Samia Methicillin-resistant staphylococcus aureus (mrsa) nosocomial infection has its own epidemiological niche and acts as a marker for overall hospital infection control effectiveness: analysis using threshold time-series modeling	Martin Tingley Insurance applications of the zero-one inflated beta distribution		1224 - 1242
1300 - 1400	LUNCH								

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Time	AusDM Program - Data Mining Applications 1	Time	AusDM Program - Deep Learning Tutorial	Time	SSA Program - Spatial Statistics in the Environmental Sciences	SSA Program - Social Research Using Big Administrative Data	SSA Program - Statistical Education	SSA Program - Business Analytics and Econometrics	Time
	Chairperson: Tania Churchill		Chairperson: Dharmendra Sharma		Chairperson: Jakub Stoklosa	Chairperson: Michelle Haynes	Chairperson: Murray Aitkin	Chairperson: Mark Griffin	
1400 - 1420	**Henry Petersen, Josiah Poon, Simon Poon and Clement Loy** Identification of Interesting Rules by Pruning Redundant Specialisations and Generalisations			1400 - 1430	**Noel Cressie** A conditional approach to multivariate spatial modelling	**Frederic R Clarke** Official Statistics and the Semantic Web	**Kevin Wang** When the mentor becomes the mentee: a mathematician in schools experience	**River Paul** Predicting personal insolvencies from macroeconomic indicators	1400 - 1418
1420 - 1440	**Sam Fletcher and Zahid Islam** Measuring the Similarity between Rule Lists						**Marijke Welvaert** The role of statisticians in promoting good statistical practice: the case of "magnitude-based inference" in sport science	**Paul Yacobellis (presented by Grant Leslie)** Econometrics of agricultural water demand	1418 - 1436
1440 - 1500	**Tshepiso Mokoena and Vukosi Marivate** Tackling Imbalanced Data Sets For Sequential Feature Explanation Generation Using Cost Sensitive Learning And Sampling		**Dr Truyen Tran** Deep Learning and Applications in Non-Cognitive Domains	1430 - 1500	**Erin Peterson** Monitoring through many eyes: Spatially enabling people to protect the Great Barrier Reef	**Andrew Smith** Advances in Text Analytics for social research	**Gary Glonek** Small p-values are not statistical evidence	**Franklin Soriano** Assessing the impact of innovation on performances among Australian businesses: a propensity score matching approach	1436 - 1454
		1400 - 1530					**John Carlin** Let's stop teaching that "p < 0.05" means "the difference is statistically significant" or "we may reject the null hypothesis"	**Chien-Hung Chien** The relationship between labour market heterogeneity and firm productivity	1454 - 1512
1500 - 1520	**Chris Bartley, Wei Liu and Mark Reynolds** A Novel Technique for Integrating Monotone Domain Knowledge into the Random Forest Classifier			1500 - 1530	**Wesley Brooks** Fast variational estimation of spatial point patterns using spatial random effects	**Bernard Baffour** Statistical Methods for the Analysis of Census Data – Evidence from the Australian Census Longitudinal Dataset (ACLD)		**Maria Jofre** Complete subset logistic regressions for corporate fraud detection	1512 - 1530
1530 - 1600	AFTERNOON BREAK								

Time	AusDM Program - Data Mining Applications 2	Time	AusDM Program - Deep Learning Tutorial (Continued)	Time	SSA Program - Analysis of Twin Studies Data	SSA Program - Research Possibilities in Climatology	SSA Program - Statistical Inference	SSA Program - Experimental Design and Planning	Time
	Chairperson: Zahid Islam		Chairperson: Dharmendra Sharma		Chairperson: Katrina Scurrah	Chairperson: John Henstridge	Chairperson: Shuangzhe Liu	Chairperson: Warren Müller	
1600 - 1620	**Md Zahidul Islam, Michael Furner and Michael Siers** WaterDM: A Knowledge Discovery and Decision Support Tool for Efficient Dam Management			1600 - 1630	**John Hopper** Insights into what it is to be human from twin and family designs	**Simon Grainger** Research possibilities in climatology	**Paul Kabaila** The effect of a preliminary test for carryover on inference from a crossover trial	**Jahar Bhowmik** Application of response surface methodology in polymer technology	1600 - 1618
1620 - 1640	**Andrew Gill and Paul Montague** Online Machine Learning Algorithms for Outlier Detection in Network Traffic Data						**Xin Zhang** On likelihood functions of interval-valued random variables	**Stella Stylianou** Fold-over weighing matrices for screening experiments	1618 - 1636
1640 - 1700	**Tamas Abraham, Andrew Gill and Paul Montague** Ensembles to Control Outlier Detection Rates in Network Traffic Data	1600 - 1730	**Dr Truyen Tran** Deep Learning and Applications in Non-Cognitive Domains	1630 - 1700	**Lisa Yelland** Calculating the sample size for clinical trials including twins	**Session Chair** Panel Discussion	**Huan Lin** A general framework for symbolic likelihood functions	**Jessica Kasza** Causal diagrams, expert opinion and structure learning: vetting the expert	1636 - 1654
							Nanxi Zhang On penalized likelihood ratio tests for generalized single-index models	**Wanbin Wang** News sentiment and portfolio selection	1654 - 1712
				1700 - 1730	**Shuai Li** The value of twin and family designs in analysis of omics data: an example of epigenomic data	**Session Chair** Floor discussion	**Marta Avalos** Exploring variable selection in additive mixed effects models using group lasso		1712 - 1730

Time	
1830 - 2230	**JOINT CONFERENCE GALA DINNER - ASC 2016 & AMS 2016 - QT Hotel**

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Thursday 8 December 2016
ASC Conference Program
SSA, AusDM & OZCOTS Program Streams
Day 4

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Room	National Ballroom 4	Room	National Ballroom 1		National Ballroom 2	National Ballroom 3	High Courtyard North	High Courtyard South
0730 - 0830	REGISTRATION							
0830 - 0900			OZCOTS Opening Ceremony Helen MacGillivray Chairperson: Brian Phillips					
0900 - 1000			Keynote Speaker (OZCOTS/SSA) George Cobb Ask not what data science can do for the Humanities. Ask rather, what the Humanities can do for data science. Chairperson: Helen MacGillivray					
1000 - 1100			Keynote Speaker (SSA) Jeffrey Rosenthal Adaptive MCMC For Everyone Chairperson: Inge Koch					
1100 - 1130	MORNING TEA							
	AusDM Program **Big Data 1**		**OZCOTS Program- Research for teaching statistics**		**Statistical Education in Australia**	**SSA Program - Bayesian Statistics 2**	**SSA Program - Statistical Modelling 3**	**SSA Program - Parameter Estimation**
	Chairperson: Warwick Graco		Chairperson: Sue Finch		Chairperson: Michael Martin	Chairperson: Ray Lindsay	Chairperson: Berwin Turlach	Chairperson: Thomas Fung
1130 - 1200	**Rohan Baxter** Using Analytics to Improve Government Agencies	1130 - 1148	**James Baglin** Exploring the impact of visual representations of variation on informal statistical inference		**Alice Richardson** A graduate certificate in statistics for the public service: bringing town and gown together	**Kerrie Mengersen** How to be bayesian in the big data era	**David Warton** Novel applications of the monte-carlo em algorithm	**Takemi Yanagimoto** Dual bayesian estimators of the incidence probability of a rare event
		1148 - 1206	**Rachel Passmore** The impact of curriculum change on the teaching and learning of time series at year 13.			**Mark Greenaway** Gaussian variational approximations to zero-inflated poisson regression models	**Kristy Robledo** A new method for fitting semi parametric variance regression	**Thanakorn Nitithunbundit** Maximum leave-one-out likelihood estimation for location parameter of unbounded densities
1200 - 1230	**Warwick Graco, Tony Nolan, Stewart Turner, Hari Koesmarno** Data Discovery at the ATO	1206 - 1224	**Minh Huynh** Teachers' perceptions of teaching statistics in schools using the islands		**Peter Howley** National statistical education initiatives: linking schools, tertiary, industry and the statistics profession	**Renate Meyer** Bayesian analysis of stationary time series using a nonparametrically corrected likelihood approximation	**Shuangzhe Liu** Estimation and influence diagnostics for an autoregressive model under skew-normal distributions	**Rushan Abeygunawardana** Inequality constrained least squares estimation in bivariate nested error regression models
1230 - 1300	**Garry A. Mitchell** Ribbon Matching: An Experimental Approach to Linking Unstructured Data	1224 - 1242	**Sophie Lee** Comparing methods used to teach regression analysis to non-statisticians			**SAS Talk: 1230 - 1300**		
		1242 - 1300	**Laura Tirlea** A pilot experimental study comparing different active learning strategies for understanding sampling		**Peter Howley** STEMS2016: Putting statistics into STEM in the Data Age	**Craig Rodger** Beyond statistics, is machine learning really different		
1300 - 1400	LUNCH							

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Time	AusDM Program — Big Data 2 Chairperson: Warwick Graco	Time	OZCOTS Program — Learning strategies for teaching introductory statistics Chairperson: James Baglin	Time	Big Bayes Chairperson: Kerrie Mengersen	SSA Program — Spatial and Spatio-Temporal Statistics 2 Chairperson: Sandy Burden	SSA Program — Statistical Modelling 4 Chairperson: Ian Wood	SSA Program — Longitudinal Data Analysis 2 Chairperson: Teresa Neeman
1400 - 1430	**David Stirling** Discovering Temporal Operational Modes in an Industrial Chemical Process and Identifying their Driving Factors with Symbolic Data Mining	1400 - 1418	**Peter Dunn** Ten simple rules for learning the language of statistics	1400 - 1430	**Chris Oates** It works, it actually works!	**Jin Li** Predictive modelling of biological count data using random forest and generalised linear models and their hybrid methods with geostatistical techniques	**Pierre Lafaye de Micheaux** Multivariate nonparametric test of independence	**Danilo Bolano** Modeling longitudinal data using hidden mixture transition distribution models: an application to medical data
		1418 - 1436	**Carl Sherwood** Whom should (still) attend lectures and tutorials?			**Azizur Rahman** A new method for estimating geographical health related characteristics of populations	**Michael Stewart** On Markov chain mixture detection	**Ning Li** On the first difference method in analysing within-person changes
1430 - 1530	**Panel Discussion: Opportunities and Challenges for Statisticians and Data Miners in the Emerging Field of Business Analytics** **Panel Members: TBA** **Moderator: Mark Griffin**	1436 - 1454	**Tania Prvan** Digital assessment submission and feedback – the rewards and issues	1430 - 1500	**Fabrizio Ruggeri** Bayesian quality control in the Big Data era	**Bohai Zhang** An errors-in-variables model for calibration/validation of remote sensing data	**Le Chang** Bootstrap lasso averaging	**Marta Avalos** Clustering of temporal sport training curves: a comparison of fda and lda approaches
		1454 - 1512	**Rushan Abeygunawardana** Teaching and learning elementary statistical concepts through self-identified problems			**Yoshitomo Akimoto** Clustering angular data for line segments	**Luke Prendergast** Meta-analysis of ratios of sample variances	**Kha Vo** Changes in housing among older women – latent class analysis of housing patterns in older Australian women
		1512 - 1530	**Murray Aitkin** A socio-public health data-based introductory statistics course	1500 - 1530	**Benoit Liquet** Bayesian Variable Selection regression of multivariate responses incorporating group structure		**Sidra Zafar** Non-iterative estimation methods for the association parameters of the ordinal log-linear model for three-way tables	**Louise Marquart** Vertex exchange method to non-parametrically estimate the random effects distribution in logistic mixed models: applications to longitudinal panel data
1530 - 1600	**AFTERNOON BREAK**							
	AusDM Program Special Topics in Data Mining		OZCOTS Program — Resources for teaching statistics Chairperson: Ian Westbrooke		SSA Program — Statistics in Practice Chairperson: Warren Müller	National Schools Poster Display and Awards Ceremony Chairperson: Peter Howley		
1600 - 1630		1600 - 1618	**Vicki Aldridge** Formative feedback: supporting and enhancing teaching and learning in statistics		**Nancy Briggs** Building a statistics consulting service within a large research intensive university: some thoughts on day-to-day operations and strategic planning	**1600 - 16:20: National Schools Poster Display (Level 1 Foyer)** **1625 - 1700: Awards Ceremony (National Ballroom 3)**		
		1618 - 1636	**Sue Finch** Thinking critically about the 1936 US presidential election polls		**Carolyn Huston** Keeping it legal			
1630 - 1700		1636 - 1654	**Yulin Liu** Let's be informed users of simulation to facilitate learning sampling distribution of the mean		**Damjan Vukcevic** Automated grading of skin texture patterns by image analysis			
1700 - 1730					**SSA Closing Ceremony (incl. Pitman Prize and ASC2018 Preview)** **Chairperson: John Henstridge**			
1900	**OZCOTS Conference Dinner - Buvette Restaurant, Hotel Realm**							

Friday 9 December 2016
ASC Conference Program
OZCOTS Program Streams
Day 5

BIG DATA: MINING, ANALYSING, TEACHING
AUSTRALIAN STATISTICAL
CONFERENCE 2016
5-9 DECEMBER 2016, CANBERRA

SSAI
Statistical Society of Australia Inc.
IN CONJUNCTION WITH
AusDM Data Mining & Analytics 6-8 DEC | OZCOTS 8-9 DEC

Room	National Ballroom 2
0730 - 0830	**REGISTRATION**
	Chairperson: Brian Phillips
0900 - 1000	**Keynote Speaker (OZCOTS)** **Kay Lipson** Reimagining Online Learning
	OZCOTS Program - Learning of Statistics Online
1000 – 1018	**Dung Tran** Designing massive open online courses for educators: the case of teaching statistics
1018 – 1036	**Jahar Bhowmik** Blended learning in postgraduate applied statistics programs
1036 – 1054	**Ian Westbrooke** Lessons from integrating online and face-to-face learning in our workplace

Program is correct at 7 December 2016 and subject to change.

1054 – 1130	MORNING TEA
	OZCOTS Program - Postgraduate learning of statistics
	Chairperson: Ian Gordon
1130 – 1148	**Judith Ascione** Mastering introductory statistics: experiences and outcomes for a public service cohort learning introductory statistics
1148 – 1206	**Charanjit Kaur** Collaborative teaching and learning in large quantitative units
1206 – 1224	**Nazim Khan** Who needs statistics?
1224 – 1242	**Denny Meyer** Preparing Statistical Consultants
1242 – 1300	**Marta Avalos** Evolution of teaching strategies of an ODL French University Diploma
1300 – 1400	**LUNCH**

Program is correct at 7 December 2016 and subject to change.

	OZCOTS Program - Learning strategies for statistics using technology
	Chairperson: John Harraway
1400 – 1418	**Anthony Morphett** Applets to support reasoning about explained and unexplained variability
1418 – 1436	**Sharon Gunn** To R or not to R – what should we be considering?
1436 – 1454	**Alice Richardson** Australian statistics poster and project competitions
1454 – 1512	**Dean Langan** Guidance for teaching R Programming to Non-Statisticians
1512 – 1530	**Timothy Kyng** Big data, data science, computer science & statistics education
1530 - 1600	**AFTERNOON BREAK**
	OZCOTS Program - Statistics for researchers and workers
	Chairperson: Michael Martin

Program is correct at 7 December 2016 and subject to change.

1600 – 1618	**John Harraway** Measuring learning within a large design research project
1618 – 1636	**Peter Ellis** Statistical capability building in a government department - the New Zealand ministry of business, innovation and employment
1636 – 1654	**Angie Wade** Development of a training program for non-statisticians
1654 – 1712	**Ian Gordon** Were we at the same consultation?
1712 – 1730	**Belinda Chiera** Teaching visualisation in the age of Big Data: Lessons from the past
1730	**CONFERENCE CLOSE**