

# CURRICULUM VITAE: PROFESSOR KERRIE Mengersen

Institute for Future Environments  
Queensland University of Technology  
ARC Centre of Excellence for Mathematical & Statistical Frontiers  
GPO Box 2434, Brisbane Australia  
[k.mengersen@qut.edu.au](mailto:k.mengersen@qut.edu.au)

## Background Statement

Kerrie Mengersen graduated with a Bachelor of Arts (Honours Class 1), majoring in Mathematics (Statistics) and Computing, and a PhD in Mathematical Statistics from the University of New England, New South Wales. Her PhD thesis was on the topic of ranking and selection under the supervision of Professor Eve Bofinger, one of the pioneer female university researchers in regional Australia. Following graduation, she was recruited by Richard Tweedie to Siromath Pty Ltd, a commercial statistical consulting company, with whom she worked for two years in Sydney and Perth. This position afforded her strong experience in a wide range of statistical methods in the context of diverse applied problems. Her career since then has been characterised by a dual focus of engaging with and developing new statistical methodology motivated by, and motivating, challenging statistical applications.

In 1989 Dr Mengersen was invited to join the inaugural academic staff of Bond University. In 1990 she took up a position as Lecturer and then Senior Lecturer at Central Queensland University, and was part of the team involved in transforming the then Institute to a University. In 1993 Dr Mengersen accepted an invitation by Professor Richard Tweedie as a Visiting Associate Professor position at Colorado State University. It was during this time that she started active research in Bayesian statistics, in collaboration with Dr Tweedie, Professor Julian Besag and Dr Christian Robert. At that time, the field of modern Bayesian statistics was only just emerging. These collaborations resulted in a long-term collaboration with Dr Robert and two prestigious papers published in *Statistical Science* and *The Annals of Statistics*, with Dr Besag and Dr Tweedie, respectively. The paper with Dr Besag, Professor Peter Green and Dr David Higdon detailed innovative ways of developing complex models in a Bayesian framework and of computing them using Markov chain Monte Carlo. This was one of the first such papers in the field. The work with Dr Tweedie contributed to the very new field of Markov chain Monte Carlo theory that was emerging as an invigorating synthesis of statistical, probability and Markov chain theory. The paper provided new theory about convergence of standard Markov chain Monte Carlo algorithms and was one of the first to derive numerical results to illustrate this theory. The collaboration with Dr Robert over the past twenty years has resulted in a continuous stream of co-authored publications on Bayesian mixture models and Bayesian computation. In 2014 Dr Mengersen and Dr Robert were invited editors of an issue of *Statistical Science* on “Big Bayes Stories”. Dr Mengersen maintains a visiting Professor position at the Université Paris Dauphine and Centre de Recherche en Économie et Statistique – National Institute of Statistics and Economic Studies, Paris, France, with annual or biennial visits to these institutions, collaborative and co-organised research workshops, invited postgraduate courses, invited seminars, co-supervision of students and expanded collaborations with other earlier career researchers at these institutions, in particular Dr Jean-Michel Marin and Dr Judith Rousseau.

Dr Mengersen returned to Australia in 1994 and joined Queensland University of Technology as a Lecturer, then Senior Lecturer, in Statistics. Her research continued to focus on both methodological and applied statistics, with a particular interest in Bayesian approaches. It was during this time that she established her interests in mixture models and meta-analysis, with a focus on environmental and health applications. She established strong networks with researchers in the School of Public Health, introducing new statistical methods for spatial and temporal modelling of disease, in particular those potentially influenced by environmental factors. This led to an ongoing research collaboration on vector-borne diseases, in particular dengue and Ross River virus, which were emergent concerns in Australia at the time. The journal articles that were produced from this research were among the first to report on these associations, and the continuing research outputs are contributing to the development of early warning systems for health

epidemics. By 2000, she had published ten substantive journal papers in statistical methodology and eleven substantive papers related to statistical application, and led two Australian Research Council Discovery Awards on new statistical methodology for applied Bayesian analysis (with Professor Tony Pettit) and diagnostics for Markov chains using nonlinear time series (with Dr Rodney Wolff) and three Australian Research Council Strategic Partnerships with Industry-Research and Training grants with collaborators on statistical decision support related to evidence based medicine, biomass estimation and biodiversity, totalling \$837,000. Her research was presented internationally at the Bayesian Valencia Conference in Spain in 1998 and by invitation at the French Meetings of Statisticians in 1999 and 2000.

In 2001, Professor Mengersen took up a position as Professor and Chair of Statistics at the University of Newcastle, Australia. This was a demanding managerial position as the Discipline required strong rebuilding and re-engagement with the rest of the University. During this period, new collaborations were formed with colleagues from the University of Newcastle, leading to nine substantive journal articles in statistical methodology and four articles in applied fields. She was a Chief Investigator on two Australian Research Council Strategic Partnerships with Industry-Research and Training grants and four Australian Research Council Linkage grants with collaborators in environment, medicine, environmental health and genetics, and one Australian Research Council Discovery Project (sole chief investigator) on new Bayesian methodology for understanding complex systems using hidden Markov models and expert opinion, environmental, robotics and genomics applications, totalling \$1,216,000. Professor Mengersen was also a chief investigator on a \$3,500,000 Australian Research Council Centre of Excellence on Complex Dynamic Systems and Control, led by Professor Graham Goodwin, and served for the life of the Centre as Leader of the Complex Systems and Modelling Program. This collaboration exposed her to new research in industrial control and complex systems, with the latter becoming a major theme for applied research and industry collaboration during the last decade. Her research in these three years was presented by invitation at eleven conferences and contributed at another five conferences in Scotland, New Zealand, Spain, Czech Republic, Switzerland and USA.

Professor Mengersen was invited back to Queensland University of Technology as a Research Professor in Statistics in 2004. During this time, she has undertaken substantive leadership roles as Director of the Faculty of Science Research Centre, during which time the first Excellence Research Australia exercise was implemented, and co-founder and inaugural Director of the Collaborative Centre for Data Analysis, Modelling and Computation at Queensland University of Technology. Her research in this period has remained strongly collaborative and has retained the dual focus on statistical methodology and its application. This activity is indicated by over 230 substantive articles published in international refereed journals. Of these 230, around a third are focussed on statistical methodology and the remainder reflect substantive statistical contributions in other scientific areas, primarily in environment, health and industry.

Professor Mengersen's productivity is also reflected by her role as Chief Investigator on six Australian Research Council Discovery Projects, eleven Australian Research Council Linkage Project, eight Cooperative Research Centre projects and three National Health and Medical Research Council Project grants, one National Health and Medical Research Council Program grant and four international research grants totalling over \$10 million. She is also a Chief Investigator on an National Health and Medical Research Council Centre on reducing hospital infections, led by Professor Nick Graves, and a \$2,400,000 Australian Research Council Linkage Project, 'Airports of the Future', led by Professor Prasad Yarlagadda, in which she leads the Complex Systems Program. In 2013 she was part of a team of 18 CIs across 6 universities that was awarded an ARC Centre of Excellence in Mathematical and Statistical Frontiers in Big Data, Big Models and New Insights. She is one of three Deputy Directors in the Centre, which attracted \$20 million over a period of seven years. In 2014 she was a co-investigator on two successful ARC Linkage Grants with industry partners Ergon and Brisbane Airport.

Professor Mengersen's research achievement has been showcased by twenty invited and keynote presentations in the past ten years at conferences in Italy, New Zealand, Spain, Turkey, France, United Kingdom, Singapore, Canada, Malaysia, Indonesia, Mexico and Australia, and many contributed presentations at national and international conferences. Through these, she has established numerous

international research collaborations, resulting in reciprocal visits, jointly authored research articles and jointly supervised students. These complement her existing networks in France, the UK and USA.

Professor Mengersen's work has been well recognised in the medical, environmental and business communities. An example of this is her long-term service for the Wesley Research Institute and the St Andrews Medical Institutes, two major hospital research facilities located in Brisbane. In addition to serving on the Wesley Research Institute Research Management Committee, she founded the Wesley Research Institute Biostatistics Laboratory and was a member of the team at St Andrews Medical Institutes that attracted a major Queensland Government Grant to progress research on improving quality of clinical processes, and hence patient outcomes and safety, in hospitals. Her work has been recognised by the Wesley Research Institute Award for outstanding science research, the first time that such an award has been made to a non-clinical or non-medical scientist.

Her research achievements and leadership in Bayesian statistics have also been recognised by her peers through the award of Elected Fellow by the International Society for Bayesian Analysis in July 2014, one of only 20 such Fellows to date and in the first tranche of women elected to these prestigious positions. Her citation reads "for her outstanding research in Bayesian Statistics, hierarchical modelling, meta-analysis, mixture models, complex systems, and for promoting Bayesian ideas and techniques in a wide range of application domains. For her leading role in the Bayesian statistics community in Australia and internationally."

Professor Mengersen's career has been primarily based in Australia for family reasons, and also because she is dedicated to progressing Australia's research capability and capacity in mathematical sciences. In addition to the above scientific contributions, this is evidenced by her commitment to training the next generation of researchers, with 28 postgraduate researchers in statistics completed under her direct supervision and over 22 further graduate students completed at Australian and international universities (Malaysia, France) under her associated supervision.

Professor Mengersen has actively contributed to professional societies, serving as National President for the Statistical Society of Australia and Managing Editor of the Australian and New Zealand Journal of Statistics, as well as taking various Executive roles in the International Society for Bayesian Analysis and the International Biometrics Society. The most recent such position is as an elected member of the International Advisory Board for the International Biometrics Society.

Within Queensland University of Technology, Professor Mengersen has personally grown a group of around thirty postgraduate and postdoctoral researchers on statistical methodology and its applications, and has maintained this group for around fifteen years. Most of the researchers in her Bayesian Research and Applications Group (BRAG) are funded by collaborative grants and have collaborators in government and industry, thus facilitating the translation of research to practice. In addition to students who have progressed through traditional routes to postgraduate research, the group includes students who have come from other professions to train or retrain in statistics, thus expanding their expertise and that of the whole group. The group also comprises a substantial cohort of women, many of which have returned to research after career breaks.

Professor Mengersen was announced as one of 15 new ARC Laureate Fellows for 2015. Her project, *Bayesian Learning for Decision Making in the Big Data Era*, has been awarded \$2.4 million over five years.

**Education:**

**1995** Graduate Certificate in Higher Education, Queensland University of Technology.

**1989** Doctor of Philosophy in Statistics, University of New England.

**1985** Bachelor of Arts (Honours Class 1), University of New England.

**Employment History:**

**2004–Present** Research Professor in Statistics, School of Mathematical Sciences, Queensland University of Technology.

**2014 – Present** Deputy Director of the ARC Centre of Excellence for Mathematical and Statistical Frontiers in Big Data, Big Models and New Insights

**2011-2012** Inaugural Director of the Collaborative Centre for Data Analysis, Modelling and Computation, Queensland University of Technology.

**2005–2007** Director of Faculty of Science Research Centre, Queensland University of Technology.

**2001-2004** Professor and Head of Discipline in Statistics, University of Newcastle.

**1994-2000** Lecturer/Senior Lecturer in Statistics, Queensland University of Technology.

**1993** Visiting Associate Professor in Statistics, Colorado State University, USA.

**1990-1992** Lecturer/Senior Lecturer in Statistics, Central Queensland University.

**1989-1990** Assistant Professor in Statistics, Bond University.

**1987-1989** Commercial statistical consultant, Siromath Pty Ltd.

**Awards and Honours:**

**2015** Australian Research Council Laureate Fellowship

**2014** Vice-Chancellor's Award for Research Excellence, Team.

**2014** Elected Fellow of the International Society for Bayesian Analysis

**2012** Queensland University of Technology Award for Excellence in Postgraduate Research Supervision.

**2010** Wesley Research Institute Outstanding Science Researcher.

**2009** Queensland University of Technology Vice-Chancellor's Award for Research Excellence, Individual.

**2009** Vice-Chancellor's Award for Research Excellence, Team.

**2009** Cooperative Research Centre National Plant Biosecurity Award for Research Translation.

**2007** Queensland University of Technology Faculty of Science award for outstanding research.

**2005** Elected Fellow of the Institute of Mathematical Sciences

**Key Professional Positions:**

**2015** Associate Member, Department of Statistics, University of Oxford

**2015** Member of the Task Team on Satellite Imagery, Remote Sensing and Geo-Spatial Data, under the UN Statistics Division Global Working Group (GWG) on Big Data for Official Statistics

**2015** Executive member, International Society for Bayesian Analysis

**2015** Invited member of Australian Research Council Centres of Excellence selection panel

**2014** Invited Co-Editor of an issue of Statistical Science on “Big Bayes Stories”

**2014–Present** Chair of the Australian and New Zealand Journal of Statistics Management Committee

**2013–2014** Elected Member of the International Advisory Board, International Biometrics Society.

**2012–Present** Appointed Member of the Biometrics and Biostatistics Panel, National Health and Medical Research Council.

**2012–Present** Appointed Member of the Panel for the Provision of Social Policy Research, Evaluation, Investment in Data and Professional Development Services, Australian Government Department of Families, Housing, Community Services and Indigenous Affairs.

**2012–Present** Reviewer, National Health and Medical Research Council Early Career Fellowships.

**2012–Present** Reviewer, Australian Research Council Future Fellows and Laureate Fellows.

**2011–2013** Elected National President, Statistical Society of Australia.

**2011–Present** Elected Member of the Australian Academy of Sciences National Heads of Mathematical Sciences Committee.

**2010** Appointed Member of the World Health Organisation International Committee for the Eradication of Malaria.

**2009–2012** Elected Executive Member of the International Society for Bayesian Analysis,

**2007–2011** Reviewer, New Zealand Marsden Foundation Grants.

**2006–Present** Reviewer, National Health and Medical Research Council Project Grants.

**2005–2008** Elected Executive Member of the International Society for Bayesian Analysis.

**2005–2009** Managing Editor for the Australian and New Zealand Journal of Statistics.

**2004–2006** Elected Member of the Advisory Board for the Bayesian Analysis journal.

**2004–2008** Founder and Inaugural President of the Australasian Chapter of the International Society for Bayesian Analysis.

**2003–Present** Reviewer, Australian Research Council Discovery and Linkage Projects.

**2002–2004** Associate Editor for the Australian and New Zealand Journal of Statistics.

**2002–2005** Associate Editor for Biometrics.

**1998–2000, 2005–Present** Appointed Member of the Research Management Board of the Wesley Research Institute.

#### **Conference organisation:**

**2004–Present** Principal organiser of Bayes on the Beach, premier annual Bayesian statistics meeting in Australia, sponsored by International Society for Bayesian Analysis (ISBA) and Statistical Society of Australia

**2010–2016** Program Committees for ISBA, MCMSki and O’Bayes Conferences

**2012** Programme Chair for ASC 2012 (Adelaide)

**2012** Program Chair for ISBA 2012 (Kyoto, Japan)

**2008** Program Chair for ISBA World Meeting (Hamilton Island)

**2006** Valencia/ISBA World Meeting (Valencia, Spain)

**2006** Programme Committee for the Statistical Society of Australia Conference (ASC)

**2005** Programme Committee for ASC

**2004** Programme Committee for ISBA World Meeting

**2002** Programme Committee for ASC

**Consultancy and Short Courses:**

**1986-1989** Fulltime consultant statistician with Siromath Pty Ltd

**1995-2001** Coordinator of the Statistical Consulting unit at QUT

**2001-2004** Co-Director of Newstat Ltd at The University of Newcastle

**2004-Present** Continuing statistical consultant

**Ongoing** Design and delivery of 1-5 day short courses for commercial clients and academic organisation: 32 courses in four countries in 2005-2014.

**Postgraduate supervision:**

>30 postgraduate students completed or enrolled.

**Prominent Invited Lectures:**

**2015** Invited Speaker; Statistics in Ecology and Environmental Monitoring (SEEM) Queenstown, New Zealand, June

**2015** Invited Speaker, 9<sup>th</sup> Workshop on Bayesian Inference in Stochastic Processes (BISP 2015), Istanbul, Turkey, June

**2015** Invited Speaker, Games and Decisions in Reliability and Risk (GDRR 2015), Istanbul, Turkey, June

**2015** Invited Session, Spatial Statistics 2015 Emerging Patterns, Avignon, France, June

**2014:**Invited Speaker, Computational Techniques and Applications Conference (CTAC), Canberra, Australia, December.

**2014:**Invited Speaker, First International Conference on Science, Makassar, Indonesia, November.

**2014** Invited Speaker, World Meeting of the International Society for Bayesian Analysis, Cancun, Mexico, July.

**2014** Invited Speaker, Joint Australian Statistical Conference and International Mathematical Sciences Conference, Sydney, Australia, June.

**2014** Keynote Speaker, International Workshop on Monte Carlo Methods in High Dimensions, Isaac Newton Institute, Cambridge, United Kingdom, March.

**2014** Keynote Speaker, Living Analytics Conference, Singapore, February.

**2013** Keynote Speaker, Standards Trade and Development Fund Closing Meeting, Bangkok, Thailand, July

**2013** Keynote Speaker, International MaxEnt Conference, Canberra, Australia, December.

**2012** Keynote Speaker, International Conference on Monte Carlo and Quasi Monte Carlo, Sydney, Australia, December.

**2011** Keynote Speaker, International Conference on Mathematical and Computational Biology, June, Melaka, Malaysia.

**2010** Keynote Speaker, International Conference on Mixtures, March, Edinburgh, UK.

**2009** Keynote Speaker, Australian and New Zealand Society for Industrial and Applied Mathematics Conference, February, Caloundra, Australia.

**2008** Keynote Speaker, International Society for Bayesian Analysis MCMSki Conference, January, Bormio, Italy.

**2007** Keynote Speaker, 9th Islamic Conference on Statistical Sciences, Kuala Lumpur, Malaysia.

**2006** Invited Speaker, International Biometrics Conference, International Biometrics Conference, July, Montreal, Canada.

**2005** Cornish Lecture, Statistical Society of Australia named lecture, July, Adelaide, Australia.

**2005** Invited Speaker, Recent Advances in Biostatistics, Bioinformatics and Markov Chain Monte Carlo, The University of New South Wales, July, Sydney, Australia.

**2002** Plenary Lecture, Australian Mathematics Association, September, Australia.

### **Major Research Grants:**

**2015** Australian Research Council Laureate Fellow. \$2,413,112. 2015-2020

**2014** Australian Research Council Centre of Excellence in Mathematical and Statistical Frontiers for Big Data, Big Models and New Insights. \$20,000,000. 2014-2018.

**2014** ARC Discovery Project, New Directions in Bayesian Statistics: formulation, computation and application to exemplar challenges; Mengersen, \$351,000. 2014-2016.

**2014** ARC Linkage Project, Improving Productivity and Efficiency of Australian Airports - A Real Time Analytics and Statistical Approach, Yarlagadda, Fookes, Mengersen, Sridharan, Goodwin, Allen, Gately et al; \$660,000. 2014-2017.

**2014** ARC Linkage Project, Customer Responsive Risk-Managed Network Planning, Ledwich, Buys, Mengersen, Drogemuller, Bell, Walden; \$525,000. 2014-2017.

**2014** Australian Institute of Marine Science (OCS), Model-Based Adaptive Monitoring: Improving the Effectiveness of Reef Monitoring Programs, Mengersen, McGree, Caley; \$100,000.

**2014** State of Queensland acting through the Department of Environment and Heritage Protection, Effective strategies for translocation of endangered native fauna, Mengersen, Johnson, Bunce \$10,000.

**2014** ARC Linkage Infrastructure Equipment and Facilities (LIEF), FlashLite: A High Performance Machine for Data Intensive Science; UQ, QUT, GU, Monash, UTS, Qld Cyber Infrastructure Foundation; Abramson, Zhou, Bernhardt, Zhang, Zhu, Mengersen, Griffiths, et al; \$1,000,000.

**2013** Department of Agriculture Fisheries and Forestry (QLD) (OCS). An Epidemiology Study of the Brisbane Infestation of *Solenopsis Invicta* (Fire Ant): Mengersen. \$161,000.

**2013** Smart Futures Co-Investment Fund with Boeing Research and Technology - Australia (BR&T-A). Creating a more Resilient Queensland - Unmanned aircraft for emergency response and biosecurity (ResQu): Campbell, Alvarez, Gonzalaz, Upcroft, Fookes, Mengersen et al. \$1,180,000. 2013-2014.

**2013** The Australian Mathematical Sciences Institute (AMSI Intern) (c/- University of Melbourne), Aus Tourism Data Warehouse; Mengersen, Thomas, Ballard; \$17,000.

**2013** Hunter Industrial Medicine Pty Ltd, An Innovative Best Practice Framework for Monitoring, Managing and Reporting Occupational and Environmental Health, Mengersen, Tierney; \$40,000. 2013-2016.

**2013** Healthy Waterways (OCS) Healthy Waterplay Statistical Decision Support Tools, Mengersen, Xie, Udy, Cleary, Wilson; \$15,000.

**2012** NHMRC Centres of Research Excellence (CRE): Centre for Research Excellence in Reducing Healthcare Associated Infection: Graves, Paterson, Riley, Nimmo, Mengersen, et al. \$2,117,000. 2013-2016.

**2012** FAO, WHO, World Bank, WTO, OEI Standards and Trade Development Facility. Beyond Compliance: Integrated Systems Approach for Pest Management in South East Asia. Mengersen, Mumford, Quinlan, Whittle. US\$600,000. 2012-2013.

**2011** CRC for Infrastructure Engineering Asset Management. An Adaptable Multi-Criteria Asset Management Decision Support Module; Fidge, Mengersen, Sun, Chakraborty, Ma, et al. \$376,000. 2011-2013.

- 2011** ARC Discovery Project, From Science to Policy: Quantifying and Managing the Risk of Mosquito Borne Disease in the Context of Climate Change; Tong, Dale, Mackenzie, Mengersen, \$300,000. 2011-2013.
- 2011** Grains Research and Development Corporation (GRDC). Integrated Data and Synthesis Framework for Reducing N20 Emissions from Australian Agricultural Soils; Grace, Mengersen, Roe, Hogan, Scheer. \$392,000. 2011-2013.
- 2011** CRC for Spatial Information. Spatial-temporal Modelling of Cancer Incidence, Survival and Mortality; Mengersen, Turrell, Kemich. \$384,000. 2011-2013.
- 2011** CRC for Spatial Information. Spatio-temporal Modelling for Biomass Business; Mengersen, Grace. \$180,000. 2011-2013.
- 2010** ARC Linkage Project, Making the most of remotely sensed data: Bayesian spatio-temporal models for enhanced natural resource management and design; Mengersen, Turner, Denham. \$360,000. 2010-2012.
- 2010** NHMRC Project Grant. Climate Change and Ross River Virus; Tong, Mengersen, McBride. \$372,000. 2010-2013.
- 2010** ARC Linkage Project. Bayesian Statistical Models for Understanding Outcomes and Improving Decision-making for Women Screened for Breast Cancer. Mengersen, Turrell, Baade. \$80,560. 2010-2012.
- 2010** NHMRC Project. Early Warning Systems for Ross River virus Outbreaks; Tong, Mengersen et al. \$580,000. 2010-2012
- 2010** UK National Institute for Health Research. Using evidence to reduce risk of healthcare acquired infection; Graves, Mengersen et al. \$700,000. 2010-2012
- 2009** ARC Linkage Project, Airports of the Future; Yarlalagadda, Sidharan, Mengersen, Rosemann, Dawson, Fookes, Piccardi, et al. \$2,429,111. 2009-2013.
- 2009** CRC for National Plant Biosecurity. Plant Biosecurity Statistical Analysis and Modelling; Mengersen, Low Choy. \$450,000. 2009-2012.
- 2008** UK Health Protection Agency. Using Evidence to Reduce the Risk of Healthcare Acquired Infection Following Primary Hip Replacement; Health Protection Agency; Graves, Mengersen, Crawford et al; \$345,000. 2008-2013.
- 2008** ARC International Linkage Project. International Networks in Applied Bayesian Statistics: Improving Australia's Knowledge Through Intelligent Data Analysis and Modelling; Mengersen, McVinish. \$266,371. 2008-2012.
- 2008** Roche Pharma. Adaptive Experimental Designs for Clinical Trials; Mengersen. \$200,000. 2008-2010
- 2008** CRC National Plant Biosecurity and Chevron. Provision of Quarantine Management Systems; Mengersen. Project 1 \$400,000 2008-2011; Project 2 \$305,000. 2008-2011, 2008-2009.
- 2008** CRC National Plant Biosecurity and Chevron. Comparison of Quarantine Risk Assessment Systems; Mengersen. \$268,000. 2008-2009.
- 2007** ARC Linkage Project. Making the Most of Database Information in Patient-Based Decision-Making A Bayesian Approach; Mengersen, Johnson, Brighthouse. \$216,144. 2007-2010.
- 2006** ARC Discovery Project. Doing Bayesian Statistics Better: an Inter-Disciplinary Perspective for Improving Models, Priors, Design and Applications; Mengersen. \$270,257. 2006-2008.
- 2006** ARC Linkage Project. Measuring and Presenting Uncertainty in Complex Natural Resource Monitoring Programs; Mengersen, Phinn, Denham. \$291,024. 2006-2008.
- 2006** ARC Linkage Project. Bayesian statistical methods for enhancing evidence-based practice in Australia's hospitals; Mengersen, Johnson, Yates. \$281,699. 2006-2008.



- 2006** Australian Academy of Science. International French-Australian Science Exchange. \$6,800. 2006-2007
- 2005** NHMRC Capacity Building Grant in Genetic Statistics; Visscher, Mengersen. \$300,000. 2005-2007
- 2005** ARC Linkage Project, Quantification of Interactions During the Dispersion of Corona Ions and Airborne Particles Near Power Lines; Morawska, Jamriska, Birtwhistle, Mengersen. \$151,237. 2005-2007.
- 2005** ARC Linkage Project. Elicitation and Integration of Expert Information for Natural Resource Management with a Focus on Water; Johnson, Mengersen, Steven. \$160,000. 2005-2006.
- 2003** ARC Centre of Excellence in Complex Dynamic Systems and Control. Program Leader, Complex Systems and Modelling; Mengersen. Centre funding \$7.5M; Program funding \$800,000. 2003-2009.
- 2003** ARC Linkage Project. Bayesian methods for analysis of genome data with focus on livestock industry. Mengersen, Hetzel. \$261,000. 2003-2004.
- 2003** ARC Linkage Project, Dynamic Spatio-Temporal Approach to Environmental Health Modelling; Tong, Mengersen, Ren. \$221,897. 2003-2005.
- 2003** ARC Discovery Project. New Bayesian methodology for understanding complex systems using hidden Markov models and expert opinion, environmental, robotics and genomics applications. Mengersen. \$60,000. 2003-2005.
- 2002** ARC Linkage Project. A toolkit of essential statistical methodology for a state-of-the-art-software and decision-support system for forest assessment using new airborne data; Mengersen, Witte. \$135,000. 2002-2004.
- 2002** ARC Linkage Project. Statistical methodology contributing to decision support capability for Evidence-based practice using two public hospitals in Brisbane as models for Australia; Mengersen, Pettitt, Wolff, Fleming, Whitby, Morton. \$299,000. 2002-2004.
- 2002** ARC SPIRT. Statistical methods for remote sensing analysis; Mengersen, Denham. \$135,000. 2002-2004
- 2000** ARC SPIRT. Statistical decision support for evidence based medicine; Mengersen, Pettitt. \$298,000. 2000-2002
- 2000** ARC SPIRT. Operational procedures for mapping biomass; Mengersen, Lucas. \$42,000. 2000-2001
- 1999** ARC Large Project Grant. New statistical methodology for applied Bayesian analysis; Mengersen, Pettitt; \$187,000. 1999-2001
- 1998** ARC Large Project Grant. Diagnostics for Markov chains using nonlinear time series; Wolff, Mengersen. \$150,000. 1998-2000
- 1998** ARC SPIRT. Decision support for biodiversity in forests. Mengersen, MacElwain. \$160,000. 1998-2000

## **PUBLICATION LIST**

### **Scholarly Books:**

1. C.P. Robert, K.L. Mengersen, D.M. Titterton. Editors, *Mixtures: Estimation and Applications*. Wiley, West Sussex, United Kingdom, ISBN 978-1-119-99389-6, 2011.
2. C. Alston, K. Mengersen, A. Pettitt. Editors, *Case Studies in Bayesian Analysis*. Wiley, West Sussex, United Kingdom, ISBN 978-1-119-94182-8, 2012.

3. J. Koricheva, J. Gurevitch, K. Mengersen. Editors, Handbook of Meta-Analysis in Ecology and Evolution. Princeton University Press, New Jersey, USA, ISBN: 9781400846184, 2013.
4. A. Morton, K.L. Mengersen, M. Whitby, G. Playford. Statistical Methods for Hospital Monitoring with R. Wiley, West Sussex, United Kingdom, ISBN 978-1-118-59630-2, 2013.
5. L. Buys, K. Mengersen, S. Johnson, N. Van Buuren, E. Miller. A Triple Bottom Line Planning Tool for Measuring Sustainability: A systems approach to sustainability, Chartridge Books Oxford, 2014.
5. F. Jarrad F, S. Low-Choy, K. Mengersen. Biosecurity Surveillance Quantitative Approaches, CABI Publishing, 2015.

### **Scholarly book chapters:**

1. J.M. Marin, K. Mengersen, C.P. Robert. Bayesian modelling and inference on mixtures of distributions. In Handbook of Statistics Vol. 25: Bayesian Statistics. D. Dey and C.R. Rao (Eds). Elsevier, p459-508, 2005.
2. K.L. Mengersen. Markov chain Monte Carlo: An Update. In Encyclopedia of Biostatistics. P. Armitage and T. Colton (Eds). Wiley and Sons Ltd, Chichester. ISBN 0-470-84907-X, 2005.
3. P. Rippon, K.L. Mengersen. Bayesian Learning. In Encyclopedia of Information Science. M. Khosrow-Pour (Ed). Information Resources Management Association, USA. (10 pp.) 2005.
4. E. Stojanovski, K. Mengersen. Multivariate Meta-Analysis. In Encyclopedia of Pharmaceutical Sciences. (15pp.), 2006.
5. E. Stojanovski, K.L. Mengersen. Bayesian Meta-Analysis. In Encyclopedia of Pharmaceutical Sciences. (15pp.) 2006.
6. R.J. Denham, K.L. Mengersen. Geographically assisted elicitation of expert opinion for regression models. In Bayesian Statistics 8. J.M. Bernardo, M.J. Bayarri, J.O. Berger, A.P. Dawid, D. Heckerman, A.F.M. Smith, M. West (Eds). Oxford University Press, ISBN-13:978-0-19-921465-5, 2007.
7. J. Moller, K.L. Mengersen. Ergodic averages via dominating processes. Bayesian Statistics 8. In Bayesian Statistics 8. J.M. Bernardo, M.J. Bayarri, J.O. Berger, A.P. Dawid, D. Heckerman, A.F.M. Smith, M. West (eds). Oxford University Press. ISBN-13:978-0-19-921465-5, 2007.
8. K. Lee, K.L. Mengersen, J.M. Marin, C.P. Robert. Bayesian inference on mixtures of distributions. In Perspectives in Mathematical Sciences I: Probability and Statistics. N.S.N. Sastry, T.S.R.K. Rao, M. Delampady, B. Rajeev (Eds). Statistical Science and Interdisciplinary Research Volume 7, World Scientific Press, 24 pages, 2008.
9. D.U. Keogh, J. Kelly, K. Mengersen, R. Jayaratne, L. Ferreira, L. Morawska. Tailpipe particle emission factors derived for motor vehicles for application to transport modelling and health impact assessments of urban fleets. In Traffic Related Air Pollution and Internal Combustion Engines, S. Demidov and J. Bonnet (Eds). Nova Science Publishers, ISBN 978-1-60741-145-1, p69-101, 2009.
10. S. Low Choy, J. Murray, A. James, K. Mengersen. Indirect elicitation from ecological experts: from methods and software to habitat modelling and rock-wallabies. In The Oxford Handbook of Applied Bayesian Analysis, A. O'Hagan and M. West (Eds), p511-544, 2010.

11. C. Robert, K. Mengersen. Exact Bayesian analysis of mixtures. In *Mixtures: Estimation and Applications*. K.L. Mengersen, C.P. Robert C.P. and M. Titterington (Eds). John Wiley and Sons, Ltd, p241-254, 2011.
12. C. Alston, K.L Mengersen, G. Gardner. Bayesian mixture models: A blood-free dissection of a sheep. In *Mixtures: Estimation and Applications*. K.L. Mengersen, C.P. Robert C.P. and M. Titterington M (Eds), p293-308, 2011.
13. M.D. Jennions, K.L. Mengersen. Meta-Analysis. In *Encyclopedia of Theoretical Ecology, Encyclopedias of the Natural World, 4*. Hastings, A., Gross, L. (Eds). University of California Press ISBN: 9780520269651, p423-425, 2012.
14. S. Low-Choy, A. James, J. Murray, K. Mengersen. Elicitor: a user-friendly, interactive tool to support scenario-based elicitation of expert knowledge. In *Expert Knowledge and Its Application in Landscape Ecology*. A. Perera, Drew.C. Ashton, C.J. Johnson, (Eds). Springer, ISBN 978-1-4614-1033-1, p 39-67, 2012.
15. P. Graham, K. Mengersen, D. Cook. Adapting ICU mortality models for local data: a Bayesian approach In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd. p90-102, 2013.
16. C. Chen, K. Mengersen, K. Ickstadt, J. Keith. A Bayesian regression model with variable selection for genome-wide association studies. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons, p103-117, 2013.
17. J. Pitchforth, K. Mengersen. Bayesian meta-analysis. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p118-140, 2013.
18. C. Alston, C. Strickland, K. Mengersen, G. Gardner. Bayesian mixed effects models. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p141-158, 2013.
19. C. Walsh, K. Mengersen. Ordering of hierarchies in hierarchical models: Bone mineral density estimation. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p159-170, 2013.
20. T. Thamrin, J. McGree, K. Mengersen. Bayesian Weibull survival model for gene expression data. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p171-185, 2013.
21. H. Assareh, I. Smith, A.N. Pettitt, K.L. Mengersen. Bayesian change point detection in monitoring clinical outcomes. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p186-196, 2013.
22. M. Donald, C. Alston, R. Young, K. Mengersen. Moisture, crops and salination: An analysis of a three-dimensional agricultural data set. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p240-251, 2013.
23. C. Alston, K. Mengersen, G. Gardner. Bayesian mixture models: When the thing you need to know is the thing you cannot measure. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p267-286, 2013.
24. N. White, H. Johnson, P. Silburn, J. Rousseau, K. Mengersen. Hidden Markov models for complex stochastic processes: A case study in electrophysiology. In *Case Studies in Bayesian Statistical Modelling and Analysis*. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p310-329, 2013.

25. R. O'Leary, S. Low Choy, H. Hu, K. Mengersen. Bayesian classification and regression trees. In Case Studies in Bayesian Statistical Modelling and Analysis. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p330-347, 2013.
26. J. Lee, K. Mengersen, C. Robert. Issues in designing hybrid algorithms. In Case Studies in Bayesian Statistical Modelling and Analysis. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p403-420, 2013.
27. C. Strickland, R. Denham, C. Alston, K. Mengersen. A Python package for Bayesian estimation using Markov chain Monte Carlo. In Case Studies in Bayesian Statistical Modelling and Analysis. C. Alston, K. Mengersen and A. Pettitt (Eds). John Wiley and Sons Ltd, p421-460, 2013.

### **Refereed Journal Publications:**

1. E Bofinger and K Mengersen. Subset-selection of the t-best populations. *Communications in Statistics-Theory and Methods*, 15(10):3145–3161, 1986.
2. E Bofinger and K Mengersen. Simultaneous comparisons with a control and with the best. *Communications in Statistics-Theory and Methods*, 17(5):1507– 1540, 1988.
3. K Mengersen and E Bofinger. Confidence-bounds and selection of the t best populations. *Communications in Statistics-Simulation and Computation*, 17(3):927–945, 1988.
4. W Dunsmuir, R Tweedie, L Flack, and K Mengersen. Modelling of transitions between employment states for young Australians. *Australian and New Zealand Journal of Statistics* 31A (1), 165-196: 1989.
5. K Mengersen. Robustness to normality of a selection rule. *Communications in Statistics-Simulation and Computation*, 21(1):35–56, 1992.
6. RL Tweedie and KL Mengersen. Lung-cancer and passive smoking – reconciling the biochemical and epidemiologic approaches. *British Journal of Cancer*, 66(4):700–705, 1992.
7. E Bofinger and K Mengersen. An upper bound on a ratio of variances. *Communications in Statistics-Theory and Methods*, 22(7):1907–1922, 1993.
8. PJ Hutchinson and K Mengersen. The financial characteristics of dynamic small enterprises: predicting success and failure. *Journal of Enterprising Culture*, 1(2), 183-202, 1993.
9. KL Mengersen. And the winner is ... statistical selection for excellence in quality management. *Journal of Mathematical and Management Sciences*, 13, 177-194, 1993.
10. BJ Biggerstaff, RL Tweedie, and KL Mengersen. Passive smoking in the workplace - classical and Bayesian metaanalyses. *International Archives of Occupational and Environmental Health*, 66(4):269–277, 1994.
11. PJ Hutchinson and K Mengersen. The distributional properties of accounting ratios and stage of development of the firm. *Indian Journal of Accounting*, XXV, 31-40, 1994.
12. RL Tweedie, KL Mengersen, and JA Eccleston. Garbage in, garbage out: can statisticians quantify the effects of poor data? *Chance* 7, 20-27, 1994.
13. J Besag, P Green, D Higdon, and K Mengersen. Bayesian computation and stochastic systems (with discussion). *Statistical Science*, 10(1):3–41, 1995.

14. MJ Merrilees and K Mengersen. Sidestream cigarette-smoke and arteriosclerosis. *Circulation*, 91(12):3022–3023, 1995.
15. KL Mengersen, RL Tweedie, and B Biggerstaff The impact of method choice on meta-analysis. *Australian and New Zealand Journal of Statistics*, 37(1):19-44, 1995.
16. RL Tweedie and KL Mengersen. Metaanalytic approaches to dose-response relationships, with application in studies of lung-cancer and exposure to environmental tobacco-smoke. *Statistics in Medicine*, 14(5-7):545–569, 1995.
17. KL Mengersen and RL Tweedie. Rates of convergence of the Hastings and Metropolis algorithms. *Annals of Statistics*, 24(1):101–121, 1996.
18. RL Tweedie, DJ Scott, BJ Biggerstaff, and KL Mengersen. Bayesian metaanalysis, with application to studies of ETS and lung cancer. *Lung Cancer*, 14(1):S171–S194, 1996.
19. MA Haynes, HL MacGillivray, and KL Mengersen. Robustness of ranking and selection rules using generalised g-and-k distributions. *Journal of Statistical Planning and Inference*, 65(1):45–66, 1997.
20. LS Jermiin, GJ Olsen, KL Mengersen, and S Easteal. Majority-rule consensus of phylogenetic trees obtained by maximum-likelihood analysis. *Molecular Biology and Evolution*, 14(12):1296–1302, 1997.
21. AW George, KL Mengersen, and GP Davis. A Bayesian approach to ordering gene markers. *Biometrics*, 55(2):419–429, 1999.
22. KL Mengersen, MJ Merrilees, and RL Tweedie. Environmental tobacco smoke and ischaemic heart disease: a case study in applying causal criteria. *International Archives of Occupational and Environmental Health*, 72(S):R1–R40, 1999.
23. KL Mengersen, CP Robert, and C Guihenneuc-Jouyaux. MCMC convergence diagnostics: A review. In Bernardo, JM and Berger, JO and Dawid, AP and Smith, AFM, editor, *Bayesian Statistics 6*, pages 415–440. Univ Valencia; Int Soc Bayesian Anal; Bernoulli Soc Math Stat & Probabil; Natl Sci Fdn; Natl Secur Agcy; USA; British Council; Real Soc Math Espanola, 1999. 6th Valencia International Meeting on Bayesian Statistics, Alcoceber, SPAIN, JUN 06-10, 1998.
24. CP Robert and KL Mengersen. Reparameterisation issues in mixture modelling and their bearing on MCMC algorithms. *Computational Statistics & Data Analysis*, 29(3):325–343, 1999.
25. R Tweedie and K Mengersen. Calculating accuracy rates from multiple assessors with limited information. *The American Statistician*, 53(3):233–238, 1999.
26. AW George, KL Mengersen, and GP Davis. Localization of a quantitative trait locus via a Bayesian approach. *Biometrics*, 56(1):40–51, 2000.
27. G Turrell and K Mengersen. Socioeconomic status and infant mortality in Australia: a national study of small urban areas, 1985-89. *Social Science & Medicine*, 50(9):1209–1225, 2000.
28. NM Good, M Paterson, C Brack, and K Mengersen. Estimating tree component biomass using variable probability sampling methods. *Journal of Agricultural Biological and Environmental Statistics*, 6(2):258–267, 2001.
29. D Nur, RC Wolff, and KL Mengersen. Phase randomisation: numerical study of higher cumulants behaviour. *Computational Statistics & Data Analysis*, 37(4):487–513, 2001.

30. F Perron and K Mengersen. Bayesian nonparametric modeling using mixtures of triangular distributions. *Biometrics*, 57(2):518–528, 2001.
31. K Williams, K Mengersen, and P Norman. Reliable Predictions for the Natural Occurrence of Blackbutt and Gympie Messmate in Southeast Queensland. *Australian Forestry* 63(3), 199-210, 2001.
32. G Casella, KL Mengersen, CP Robert, and DM Titterington. Perfect samplers for mixtures of distributions. *Journal of the Royal Statistical Society Series B–Statistical Methodology*, 64(Part 4):777–790, 2002.
33. WB Hu, K Mengersen, and SL Tong. Spline regression and auto-regression models with application to time-series data. *Epidemiology*, 13(4):S215, 2002.
34. L Morawska, ER Jayaratne, K Mengersen, M Jamriska, and S Thomas. Differences in airborne particle and gaseous concentrations in urban air between weekdays and weekends. *Atmospheric Environment*, 36(27):4375–4383, 2002.
35. L Morawska, D Vishvakarman, K Mengersen, and S Thomas. Spatial variation of airborne pollutant concentrations in Brisbane, Australia and its potential impact on population exposure assessment. *Atmospheric Environment*, 36(21):3545–3555, 2002.
36. PL Graham, K Mengersen, and AP Morton. Confidence limits for the ratio of two rates based on likelihood scores: non-iterative method. *Statistics in Medicine*, 22(12):2071–2083, 2003.
37. PM Kuhnert and K Mengersen. Reliability measures for local nodes assessment in classification trees. *Journal of Computational and Graphical Statistics*, 12(2):398–416, 2003.
38. PM Kuhnert, K Mengersen, and P Tesar. Bridging the gap between different statistical approaches: An integrated framework for modelling. *International Statistical Review*, 71(2):335–368, 2003.
39. KL Mengersen and CP Robert. IID sampling using self-avoiding population Monte Carlo: The pinball sampler. In Bernardo, JM and Bayarri, MJ and Berger, JO and Dawid, AP and Heckerman, D and Smith, AFM, editor, *Bayesian Statistics 7*, pages 277–292, 2003. 7th Valencia International Meeting on Bayesian Statistics, Valencia, SPAIN, JUN 02-06, 2002.
40. L Morawska, CR He, J Hitchins, K Mengersen, and D Gilbert. Characteristics of particle number and mass concentrations in residential houses in Brisbane, Australia. *Atmospheric Environment*, 37(30):4195–4203, 2003.
41. IS Nam, K Mengersen, and P Garthwaite. Multivariate meta-analysis. *Statistics in Medicine*, 22(14):2309–2333, 2003.
42. CL Alston, KL Mengersen, JM Thompson, PJ Littlefield, D Perry, and AJ Ball. Statistical analysis of sheep CAT scan images using a Bayesian mixture model. *Australian Journal of Agricultural Research*, 55(1):57–68, 2004.
43. RL Wolpert and KL Mengersen. Adjusted likelihoods for synthesizing empirical evidence from studies that differ in quality and design: Effects of environmental tobacco smoke. *Statistical Science*, 19(3):450–471, 2004.
44. CL Alston, KL Mengersen, JM Thompson, PJ Littlefield, D Perry, and AJ Ball. Extending the Bayesian mixture model to incorporate spatial information in analysing sheep CAT scan images. *Australian Journal of Agricultural Research*, 56(4):373–388, 2005.

45. P Baker, K Mengersen, and G Davis. A Bayesian solution to reconstructing centrally censored distributions. *Journal of Agricultural Biological and Environmental Statistics*, 10(1):61–83, 2005.
46. M Haynes and K Mengersen. Bayesian estimation of g-and-k distributions using MCMC. *Computational Statistics*, 20(1):7–30, 2005.
47. NS Holmes, L Morawska, K Mengersen, and ER Jayaratne. Spatial distribution of submicrometre particles and CO in an urban microscale environment. *Atmospheric Environment*, 39(22):3977–3988, 2005.
48. W Hu, S Tong, K Mengersen, and B Oldenburg. Rainfall, mosquito density and the transmission of Ross River virus: A time series forecasting model. *Epidemiology*, 16(5):S113, 2005.
49. PM Kuhnert, TG Martin, K Mengersen, and HP Possingham. Assessing the impacts of grazing levels on bird density in woodland habitat: a Bayesian approach using expert opinion. *Environmetrics*, 16(7):717–747, 2005.
50. TG Martin, PM Kuhnert, K Mengersen, and HP Possingham. The power of expert opinion in ecological models using Bayesian methods: Impact of grazing on birds. *Ecological Applications*, 15(1):266–280, 2005.
51. T Moffiet, K Mengersen, C Witte, R King, and R Denham. Airborne laser scanning: Exploratory data analysis indicates potential variables for classification of individual trees or forest stands according to species. *ISPRS Journal of Photogrammetry and Remote Sensing*, 59(5):289–309, 2005.
52. L Morawska, W Hofmann, J Hitchins-Loveday, C Swanson, and K Mengersen. Experimental study of the deposition of combustion aerosols in the human respiratory tract. *Journal of Aerosol Science*, 36(8):939–957, 2005.
53. L Morawska, M Jamriska, S Thomas, L Ferreira, K Mengersen, D Wraith, and F McGregor. Quantification of particle number emission factors for motor vehicles from on-road measurements. *Environmental Science & Technology*, 39(23):9130–9139, 2005.
54. D Nur, KL Mengersen, and RC Wolff. Phase randomization: A convergence diagnostic test for MCMC. *Australian & New Zealand Journal of Statistics*, 47(3):309–323, 2005.
55. G Francis, G Beadle, S Thomas, K Mengersen, and S Stein. Evaluation of oestrogen and progesterone receptor status in HER-2 positive breast carcinomas and correlation with outcome. *Pathology*, 38(5):391–398, 2006.
56. W Hu, D Connell, K Mengersen, and S Tong. Climate variability and the transmission of cryptosporidiosis. *Epidemiology*, 17(6):S424, 2006. ISEE/ISEA 2006 Conference on Environmental Epidemiology and Exposure, Paris, FRANCE, SEP 04, 2006.
57. WB Hu, SL Tong, K Mengersen, B Oldenburg, and P Dale. Mosquito species (Diptera: Culicidae) and the transmission of Ross River Virus in Brisbane, Australia. *Journal of Medical Entomology*, 43(2):375–381, 2006.
58. W Hu, S Tong, K Mengersen, and B Oldenburg. Rainfall, mosquito density and the transmission of Ross River virus: A time-series forecasting model. *Ecological Modelling*, 196(3-4):505–514, 2006.
59. IA Wood, G Moser, DL Burrell, KL Mengersen, and DJS Hetzel. A metaanalytic assessment of a Thyroglobulin marker for marbling in beef cattle. *Genetics Selection Evolution*, 38(5):479–494, 2006.

60. CL Alston, KL Mengersen, CP Robert, JM Thompson, PJ Littlefield, D Perry, and AJ Ball. Bayesian mixture models in a longitudinal setting for analysing sheep CAT scan images. *Computational Statistics & Data Analysis*, 51(9):4282–4296, 2007.
61. G Beadle, M Rolfe, K Pearncombe, B Andrew, K Mengersen, and M Wright. Memory loss after adjuvant chemotherapy for breast cancer: a preliminary analysis of mediating variables utilizing cross-sectional correlations and multilevel longitudinal analysis. *Breast Cancer Research and Treatment*, 106(1):S74, 2007. 30th Annual San Antonio Breast Cancer Symposium, San Antonio, TX, DEC 13-16, 2007.
62. L Chen, K Mengersen, and S Tong. Spatiotemporal relationship between particle air pollution and respiratory emergency hospital admissions in Brisbane, Australia. *Science of the Total Environment*, 373(1):57–67, 2007.
63. R Denham and K Mengersen. Geographically Assisted Elicitation of Expert Opinion for Regression Models. *Bayesian Analysis*, 2(1):99–135, 2007.
64. A Earnest, G Morgan, K Mengersen, L Ryan, R Summerhayes, and J Beard. Evaluating the effect of neighbourhood weight matrices on smoothing properties of Conditional Autoregressive (CAR) models. *International Journal of Health Geographics*, 6, 2007.
65. PL Graham, PM Kuhnert, DA Cook, and K Mengersen. Improving the quality of patient care using reliability measures: A classification tree approach. *Statistics in Medicine*, 26(1):184–196, 2007.
66. GS Hamilton, F Fielding, AW Chiffings, BT Hart, RW Johnstone, and K Mengersen. Investigating the use of a Bayesian Network to model the risk of *Lyngbya majuscula* bloom initiation in deception bay, Queensland, Australia. *Human and Ecological Risk Assessment*, 13(6):1271–1287, 2007.
67. W Hu, K Mengersen, P Bi, and S Tong. Time-series analysis of the risk factors for haemorrhagic fever with renal syndrome: comparison of statistical models. *Epidemiology and Infection*, 135(2):245–252, 2007.
68. W Hu, S Tong, K Mengersen, and D Connell. Weather variability and the incidence of cryptosporidiosis: Comparison of time series Poisson regression and SARIMA models. *Annals of Epidemiology*, 17(9):679–688, 2007.
69. W Hu, S Tong, K Mengersen, and B Oldenburg. Exploratory spatial analysis of social and environmental factors associated with the incidence of Ross River virus in Brisbane, Australia. *American Journal of Tropical Medicine and Hygiene*, 76(5):814–819, 2007.
70. JF Mejia, D Wraith, K Mengersen, and L Morawska. Trends in size classified particle number concentration in subtropical Brisbane, Australia, based on a 5 year study. *Atmospheric Environment*, 41(5):1064–1079, 2007.
71. K Mengersen, SA Moynihan, and RL Tweedie. Causality and association: The statistical and legal approaches. *Statistical Science*, 22(2):227–254, 2007.
72. J Moller and K Mengersen. Ergodic averages for monotone functions using upper and lower dominating processes. *Bayesian Analysis*, 2(4):761–781, 2007.
73. L Morawska, ZD Ristovski, GR Johnson, ER Jayaratne, and K Mengersen. Novel method for on-road emission factor measurements using a plume capture trailer. *Environmental Science & Technology*, 41(2):574–579, 2007.



74. C Ren, SJ Tong, G Williams, and K Mengersen. Temperature modifies short term effects of ozone on total mortality in 60 large eastern US communities. *Epidemiology*, 18(5, S):S33–S34, 2007. 19th Annual Conference of the International-Society-for-Environmental-Epidemiology, Mexico City, Mexico, SEP 05-09, 2007.
75. C Ren, G Williams, L Morawska, K Mengersen, and S Tong. Ozone modifies associations between temperature and cardiovascular mortality – The analysis using the NMMAPS data. *Epidemiology*, 18(5, S):S69–S70, 2007.
76. IA Wood, PM Visscher, and KL Mengersen. Classification based upon gene expression data: bias and precision of error rates. *Bioinformatics*, 23(11):1363– 1370, 2007.
77. D Wraith and K Mengersen. Assessing the combined effect of asbestos exposure and smoking on lung cancer: A Bayesian approach. *Statistics in Medicine*, 26(5):1150–1169, 2007.
78. E Bofinger, PL Graham, and KL Mengersen. Partitioning with respect to a control: Unequal sample sizes case. *Communications in Statistics-Theory and Methods*, 37(17):2713–2723, 2008.
79. M Haynes, K Mengersen, and P Rippon. Generalized control charts for non-normal data using g-and-k distributions. *Communications in Statistics-Simulation and Computation*, 37(9):1881–1903, 2008.
80. W Hu, K Mengersen, and S Tong. A Comparison of Zero-Inflated Poisson and Classification and Regression Trees for Predicting the Incidence of Cryptosporidiosis. *Epidemiology*, 19(6):S139–S140, 2008.
81. W Hu, K Mengersen, Anthony McMichael, and S Tong. Temperature, air pollution and total mortality during summers in Sydney, 1994-2004. *International Journal of Biometeorology*, 52(7):689–696, 2008.
82. FO J-Fatokun, ER Jayaratne, L Morawska, R Rachman, D Birtwhistle, and K Mengersen. Characterization of the atmospheric electrical environment near a corona ion-emitting source. *Atmospheric Environment*, 42(7):1607–1616, 2008.
83. JM Keith, A McRae, D Duffy, K Mengersen, and PM Visscher. Calculation of IBD probabilities with dense SNP or sequence data. *Genetic Epidemiology*, 32(6):513–519, 2008.
84. AN May, GWO Fulde, J Duflou, KL Mengersen, and C Read-Allsopp. External injury documentation in major trauma victims is inadequate: Grounds for routine photography in the emergency department? *Emergency Medicine Australasia*, 20(6):500–507, 2008.
85. R McVinish and K Mengersen. Semiparametric Bayesian circular statistics. *Computational Statistics & Data Analysis*, 52(10):4722–4730, 2008.
86. JF Mejia, L Morawska, and K Mengersen. Spatial variation in particle number size distributions in a large metropolitan area. *Atmospheric Chemistry and Physics*, 8(5):1127–1138, 2008.
87. L Morawska, DU Keogh, SB Thomas, and K Mengersen. Modality in ambient particle size distributions and its potential as a basis for developing air quality regulation. *Atmospheric Environment*, 42(7):1617–1628, 2008.
88. C Oldmeadow, I Wood, K Mengersen, PM Visscher, NG Martin, and DL Duffy. Investigation of the relationship between smoking and appendicitis in Australian twins. *Annals of Epidemiology*, 18(8):631–636, 2008.

89. J Peters and K Mengersen. Selective Reporting of Adjusted Estimates in Observational Epidemiology Studies: Reasons and Implications for Metaanalyses. *Evaluation & the Health Professions*, 31(4):370–389, 2008.
90. JL Peters and KL Mengersen. Meta-analysis of repeated measures study designs. *Journal of Evaluation in Clinical Practice*, 14(5):941–950, 2008.
91. C Ren, GM Williams, L Morawska, K Mengersen, and S Tong. Ozone modifies associations between temperature and cardiovascular mortality: analysis of the NMMAPS data. *Occupational and Environmental Medicine*, 65(4):255-260, 2008.
92. C Ren, GM Williams, K Mengersen, L Morawska, and S Tong. Does temperature modify short-term effects of ozone on total mortality in 60 large eastern US communities? An assessment using the NMMAPS data. *Environment International*, 34(4):451–458, 2008.
93. F Tuyl, R Gerlach, and K Mengersen. A comparison of Bayes-Laplace, Jeffreys, and other priors: The case of zero events. *American Statistician*, 62(1):40–44, 2008.
94. F Tuyl, R Gerlach, and K Mengersen. Inference for Proportions in a 2 x 2 Contingency Table: HPD or not HPD? *Biometrics*, 64(4):1293–1295, 2008.
95. D Wraith and K Mengersen. A Bayesian approach to assess interaction between known risk factors: the risk of lung cancer from exposure to asbestos and smoking. *Statistical Methods in Medical Research*, 17(2):171–189, 2008.
96. D Allingham, RAR King, and KL Mengersen. Bayesian estimation of quantile distributions. *Statistics and Computing*, 19(2):189–201, 2009.
97. CL Alston, KL Mengersen, and GE Gardner. A new method for calculating the volume of primary tissue types in live sheep using computed tomography scanning. *Animal Production Science*, 49(11):1035–1042, 2009.
98. G Beadle, K Mengersen, S Moynihan, and P Yates. Understanding, voluntariness and informed consent in daily clinical trials practice: perceptions of oncology nurses. *EJC Supplements*, 7(2):212, 2009.
99. CYH Chao, MP Wan, L Morawska, GR Johnson, ZD Ristovski, M Hargreaves, K Mengersen, S Corbett, Y Li, X Xie, and D Katoshevski. Characterization of expiration air jets and droplet size distributions immediately at the mouth opening. *Journal of Aerosol Science*, 40(2):122–133, 2009.
100. CCM Chen, KL Mengersen, JM Keith, NG Martin, and Dale R. Nyholt. Linkage and heritability analysis of migraine symptom groupings: a comparison of three different clustering methods on twin data. *Human Genetics*, 125(5-6):591–604, 2009.
101. CC Ming Chen, JM Keith, DR Nyholt, NG Martin, and KL Mengersen. Bayesian latent trait modeling of migraine symptom data. *Human Genetics*, 126(2):277–288, 2009.
102. JB Choudhury, G Beadle, and K Mengersen. Measurement of quality of life in women with breast cancer before and after adjuvant chemotherapy: A structural equation modelling. *Journal of Clinical Oncology*, 27(15, S), 2009. 45th Annual Meeting of the American-Society-of-Clinical-Oncology, Orlando, FL, MAY 29-JUN 02, 2009.
103. S Low Choy, R O’Leary, and K Mengersen. Elicitation by design in ecology: using expert opinion to inform priors for Bayesian statistical models. *Ecology*, 90(1):265–277, 2009.

104. L Davidovitch, R Stoklosa, J Majer, A Nietrzeba, P Whittle, K Mengersen, and Y Ben-Haim. Info-gap theory and robust design of surveillance for invasive species: The case study of Barrow Island. *Journal of Environmental Management*, 90(8):2785–2793, 2009.
105. R Denham, K Mengersen, and C Witte. Bayesian analysis of thematic map accuracy data. *Remote Sensing of Environment*, 113(2):371–379, 2009.
106. M Donald, A Cook, and K Mengersen. Bayesian Network for Risk of Diarrhea Associated with the Use of Recycled Water. *Risk Analysis*, 29(12):1672–1685, 2009.
107. G Hamilton, R McVinish, and K Mengersen. Bayesian model averaging for harmful algal bloom prediction. *Ecological Applications*, 19(7):1805–1814, 2009.
108. W Hu, D Connell, K Mengersen, and S Tong. Weather Variability, Sunspots, and the Blooms of Cyanobacteria. *Ecohealth*, 6(1):71–78, 2009.
109. W Hu, K Mengersen, and S Tong. Spatial Analysis of Notified Cryptosporidiosis Infections in Brisbane, Australia. *Annals of Epidemiology*, 19(12):900–907, 2009.
110. LD Knibbs, RJ de Dear, L Morawska, and KL Mengersen. On-road ultrafine particle concentration in the M5 East road tunnel, Sydney, Australia. *Atmospheric Environment*, 43(22-23):3510–3519, 2009.
111. R McVinish, J Rousseau, and K Mengersen. Bayesian Goodness of Fit Testing with Mixtures of Triangular Distributions. *Scandinavian Journal of Statistics*, 36(2):337–354, 2009.
112. L Morawska, GR Johnson, ZD Ristovski, M Hargreaves, K Mengersen, S Corbett, CYH Chao, Y Li, and D Katoshevski. Size distribution and sites of origin of droplets expelled from the human respiratory tract during expiratory activities. *Journal of Aerosol Science*, 40(3):256–269, 2009.
113. D Nur, D Allingham, J Rousseau, KL Mengersen, and R McVinish. Bayesian hidden Markov model for DNA sequence segmentation: A prior sensitivity analysis. *Computational Statistics & Data Analysis*, 53(5):1873–1882, 2009.
114. C Oldmeadow, K Mengersen, N Martin, and DL Duffy. Heritability and Linkage Analysis of Appendicitis Utilizing Age at Onset. *Twin Research and Human Genetics*, 12(2):150–157, 2009.
115. RA O’Leary, S Low Choy, JV Murray, M Kynn, R Denham, TG Martin, and K Mengersen. Comparison of three expert elicitation methods for logistic regression on predicting the presence of the threatened brush-tailed rockwallaby *Petrogale penicillata*. *Environmetrics*, 20(4):379–398, 2009.
116. C Ren, GM Williams, K Mengersen, L Morawska, and S Tong. Temperature Enhanced Effects of Ozone on Cardiovascular Mortality in 95 Large US Communities, 1987-2000: Assessment Using the NMMAPS Data. *Archives of Environmental & Occupational Health*, 64(3):177–184, 2009.
117. KA Stockton and KL Mengersen. Effect of Multiple Physiotherapy Sessions on Functional Outcomes in the Initial Postoperative Period after Primary Total Hip Replacement: A Randomized Controlled Trial. *Archives of Physical Medicine and Rehabilitation*, 90(10):1652–1657, 2009.
118. CM Strickland, IW Turner, R Denham, and KL Mengersen. Efficient Bayesian estimation of multivariate state space models. *Computational Statistics & Data Analysis*, 53(12):4116–4125, 2009.
119. F Tuyl, R Gerlach, and K Mengersen. Posterior predictive arguments in favor of the Bayes-Laplace prior as the consensus prior for binomial and multinomial parameters. *Bayesian Analysis*, 4(1):151–158, 2009.

120. F Tuyl, R Gerlach, and K Mengersen. The Rule of Three, its Variants and Extensions. *International Statistical Review*, 77(2):266–275, 2009.
121. F Tuyl, R Gerlach, and K Mengersen. Tuyl, F., Gerlach, R., and Mengersen, K. (2008), A Comparison of Bayes-Laplace, Jeffreys's, and Other Priors: The Case of Zero Events. *The American Statistician*, 62, 40-44: Comment and Reply. *American Statistician*, 63(2):197–198, 2009.
122. N White, H Johnson, K Mengersen, P Silburn, G Mellick, and N Dissanayaka. A probabilistic approach for patient classification in Parkinson's disease. *Movement Disorders*, 24:S388, 2009. 13th International Congress of Parkinson's Disease and Movement Disorders, Paris, France, JUN 07-11, 2009.
123. N White, P Silberstein, P Silburn, T Coyne, R Cook, L Jones, D Wasson, G Fraachia, H Johnson, and K Mengersen. Predicting motor outcomes following STN DBS for Parkinson's disease: A probabilistic approach. *Movement Disorders*, 24:S466–S467, 2009.
124. W Yu, G FitzGerald, K Mengersen, X Pan, and S Tong. Daily Mean Temperature Effects on the Old People-Meta-Analysis of the Effects of Temperature Variation on Mortality among the Elderly with Different Latitudes and Lags. *Epidemiology*, 20(6, S):S105–S106, 2009.
125. CL Alston and KL Mengersen. Allowing for the effect of data binning in a Bayesian Normal mixture model. *Computational Statistics & Data Analysis*, 54(4):916–923, 2010.
126. S Barrett, P Whittle, K Mengersen, and R Stoklosa. Biosecurity threats: the design of surveillance systems, based on power and risk. *Environmental and Ecological Statistics*, 17(4, SI):503–519, 2010.
127. A Earnest, JR Beard, G Morgan, D Lincoln, R Summerhayes, D Donoghue, T Dunn, D Muscatello, and K Mengersen. Small area estimation of sparse disease counts using shared component models-application to birth defect registry data in New South Wales, Australia. *Health & Place*, 16(4):684–693, 2010.
128. MG Falk, RJ Denham, and KL Mengersen. Estimating Uncertainty in the Revised Universal Soil Loss Equation via Bayesian Melding. *Journal of Agricultural Biological and Environmental Statistics*, 15(1):20–37, 2010.
129. FJ Fatokun, R Jayaratne, L Morawska, D Birtwhistle, R Rachman, and K Mengersen. Corona Ions from Overhead Transmission Voltage Powerlines: Effect on Direct Current Electric Field and Ambient Particle Concentration Levels. *Environmental Science & Technology*, 44(1):526–531, 2010.
130. D Gajda, C Guihenneuc-Jouyaux, J Rousseau, K Mengersen, and D Nur. Use in practice of importance sampling for repeated MCMC for Poisson models. *Electronic Journal of Statistics*, 4:361–383, 2010.
131. J Gurevitch and K Mengersen. A statistical view of synthesizing patterns of species richness along productivity gradients: devils, forests, and trees. *Ecology*, 91(9):2553–2560, 2010.
132. W Hu, K Mengersen, P Dale, and S Tong. Difference in Mosquito Species (Diptera: Culicidae) and the Transmission of Ross River Virus between Coastline and Inland Areas in Brisbane, Australia. *Environmental Entomology*, 39(1):88–97, 2010.
133. W Hu, A Clements, G Williams, S Tong, and K Mengersen. Bayesian Spatiotemporal Analysis of Socio-Ecologic Drivers of Ross River Virus Transmission in Queensland, Australia. *American Journal of Tropical Medicine and Hygiene*, 83(3):722–728, 2010.
134. W Hu, K Mengersen, S-Y Fu, and S Tong. The use of ZIP and CART to model cryptosporidiosis in relation to climatic variables. *International Journal of Biometeorology*, 54(4):433–440, 2010.

135. W Hu, K Mengersen, and S Tong. Risk factor analysis and spatiotemporal CART model of cryptosporidiosis in Queensland, Australia. *BMC Infectious Diseases*, 10, p311-323, 2010.
136. A James, S Low Choy, and K Mengersen. Elicitor: An expert elicitation tool for regression in ecology. *Environmental Modelling & Software*, 25(1):129–145, 2010.
137. S Johnson, F Fielding, G Hamilton, and K Mengersen. An Integrated Bayesian Network approach to *Lyngbya majuscula* bloom initiation. *Marine Environmental Research*, 69(1):27–37, 2010.
138. S Johnson, K Mengersen, A de Waal, K Marnewick, D Cilliers, AM Houser, and L Boast. Modelling cheetah relocation success in southern Africa using an Iterative Bayesian Network Development Cycle. *Ecological Modelling*, 221(4):641–651, 2010.
139. DU Keogh, J Kelly, K Mengersen, R Jayaratne, L Ferreira, and L Morawska. Derivation of motor vehicle tailpipe particle emission factors suitable for modelling urban fleet emissions and air quality assessments. *Environmental Science and Pollution Research*, 17(3):724–739, 2010.
140. T Moffiet, JD Armston, and K Mengersen. Motivation, development and validation of a new spectral greenness index: A spectral dimension related to foliage projective cover. *Isprs Journal of Photogrammetry and Remote Sensing*, 65(1):26–41, 2010.
141. A Morton, D Cook, K Mengersen, and M Waterhouse. Limiting risk of hospital adverse events: avoiding train wrecks is more important than counting and reporting them. *Journal of Hospital Infection*, 76(4):283–286, 2010.
142. A Morton, K Mengersen, M Waterhouse, and S Steiner. Analysis of aggregated hospital infection data for accountability. *Journal of Hospital Infection*, 76(4):287–291, 2010.
143. A Morton, K Mengersen, M Waterhouse, S Steiner, and D Looke. Sequential analysis of uncommon adverse outcomes. *Journal of Hospital Infection*, 76(2):114–118, 2010.
144. C Oldmeadow, K Mengersen, JS Mattick, and JM Keith. Multiple Evolutionary Rate Classes in Animal Genome Evolution. *Molecular Biology and Evolution*, 27(4):942–953, 2010.
145. ES Pelzer, K Cunningham, JJ Allan, K Mengersen, JM Allan, T Launchbury, K Beagley, and CL Knox. Microbial colonisation of follicular fluid: alterations in cytokine expression and adverse assisted reproductive technology outcomes. *Journal of Reproductive Immunology*, 86(1, SI):30–31, 2010.
146. CP Robert, K Mengersen, and C Chen. Model choice versus model criticism. *Proceedings of the National Academy of Sciences of the United States of America*, 107(3):E5, 2010.
147. MI Rolfe, K Mengersen, G Beadle, K Vearncombe, B Andrew, HL Johnson, and C Walsh. Latent class piecewise linear trajectory modelling for short term cognition responses after chemotherapy for breast cancer patients. *Journal of Applied Statistics*, 37(5):725–738, 2010.
148. M Waterhouse, I Smith, H Assareh, and K Mengersen. Implementation of multivariate control charts in a clinical setting. *International Journal for Quality in Health Care*, 22(5):408–414, 2010.
149. W Yu, P Vaneckova, K Mengersen, X Pan, and S Tong. Is the association between temperature and mortality modified by age, gender and socioeconomic status? *Science of the Total Environment*, 408(17):3513–3518, 2010.
150. Jarrad F, Whittle PJ, Barrett SA, **Mengersen KL**, [2010] Barrow Island's biosecurity: Catching the unknown invader, *Significance: statistics making sense*, 7 (2), p53-57

151. G Beadle, K Mengersen, S Moynihan, and P Yates. Perceptions of the ethical conduct of cancer trials by oncology nurses. *European Journal of Cancer Care*, 20(5):585–592, 2011.
152. CCM Chen, H Schwender, J Keith, R Nunkesser, K Mengersen, and P Macrossan. Methods for Identifying SNP Interactions: A Review on Variations of Logic Regression, Random Forest and Bayesian Logistic Regression. *IEEACM Transactions on Computational Biology and Bioinformatics*, 8(6):1580–1591, 2011.
153. S Clifford, S Low Choy, T Hussein, K Mengersen, and L Morawska. Using the Generalised Additive Model to model the particle number count of ultrafine particles. *Atmospheric Environment*, 45(32):5934–5945, 2011.
154. SM Cramb, KL Mengersen, and PD Baade. Developing the atlas of cancer in Queensland: methodological issues. *International Journal of Health Geographics*, 10, p 1-11, 2011.
155. SM Cramb, KL Mengersen, and PD Baade. Identification of area-level influences on regions of high cancer incidence in Queensland, Australia: a classification tree approach. *BMC Cancer*, 11, 2011.
156. RJ Denham, MG Falk, and KL Mengersen. The Bayesian conditional independence model for measurement error: applications in ecology. *Environmental and Ecological Statistics*, 18(2):239–255, 2011.
157. M Donald, CL Alston, RR Young, and KL Mengersen. A Bayesian analysis of an agricultural field trial with three spatial dimensions. *Computational Statistics & Data Analysis*, 55(12):3320–3332, 2011.
158. M Donald, K Mengersen, S Toze, JPS Sidhu, and A Cook. Incorporating parameter uncertainty into Quantitative Microbial Risk Assessment (QMRA). *Journal of Water and Health*, 9(1):10–26, 2011.
159. MG Falk, RJ Denham, and KL Mengersen. Spatially stratified sampling using auxiliary information for geostatistical mapping. *Environmental and Ecological Statistics*, 18(1):93–108, 2011.
160. S Goater, A Cook, A Hogan, K Mengersen, A Hieatt, and P Weinstein. Strategies to Strengthen Public Health Inputs to Water Policy in Response to Climate Change: An Australian Perspective. *Asia-Pacific Journal of Public Health*, 23(2, S):80S–90S, 2011.
161. W Hu, RA O’Leary, K Mengersen, and S Low Choy. Bayesian Classification and Regression Trees for Predicting Incidence of Cryptosporidiosis. *PLoS One*, 6(8), 2011.
162. X Huang, P Grace, K Mengersen, and K Weier. Spatio-temporal variation in soil derived nitrous oxide emissions under sugarcane. *Science of the Total Environment*, 409(21):4572–4578, 2011.
163. FC Jarrad, S Barrett, J Murray, J Parkes, R Stoklosa, K Mengersen, and Peter Whittle. Improved design method for biosecurity surveillance and early detection of non-indigenous rats. *New Zealand Journal of Ecology*, 35(2, SI):132–144, 2011.
164. FC Jarrad, S Barrett, J Murray, R Stoklosa, P Whittle, and K Mengersen. Ecological aspects of biosecurity surveillance design for the detection of multiple invasive animal species. *Biological Invasions*, 13(4):803–818, 2011.
165. GR Johnson, L Morawska, ZD Ristovski, M Hargreaves, K Mengersen, CYH Chao, MP Wan, Y Li, X Xie, D Katoshevski, and S Corbett. Modality of human expired aerosol size distributions. *Journal of Aerosol Science*, 42(12):839–851, 2011.
166. JE Lee, R McVinish, and K Mengersen. Population Monte Carlo Algorithm in High Dimensions. *Methodology and Computing in Applied Probability*, 13(2): 369–389, 2011.

167. E Meijaard, D Buchori, Y Hadiprakarsa, SS Utami-Atmoko, A Nurcahyo, A Tjiu, D Prasetyo, Nardiyono, L Christie, M Ancrenaz, F Abadi, ING Antoni, D Armayadi, A Dinato, Ella, P Gumelar, TP Indrawan, Kussaritano, C Munajat, C Wawan Puji Priyono, Y Purwanto, D Puspitasari, M Syukur Wahyu Putra, A Rahmat, H Ramadani, J Sammy, D Siswanto, M Syamsuri, N Andayani, HWu, JAWells, and K Mengersen. Quantifying Killing of Orangutans and Human-Orangutan Conflict in Kalimantan, Indonesia. *PLOS One*, 6(11), 2011.
168. E Meijaard, K Mengersen, D Buchori, A Nurcahyo, M Ancrenaz, S Wich, SSU Atmoko, A Tjiu, D Prasetyo, Nardiyono, Y Hadiprakarsa, L Christy, J Wells, G Albar, and AJ Marshall. Why Don't We Ask? A Complementary Method for Assessing the Status of Great Apes. *PLoS One*, 6(3), 2011.
169. JF Mejia, S Low Choy, K Mengersen, and L Morawska. Methodology for assessing exposure and impacts of air pollutants in school children: Data collection, analysis and health effects - A literature review. *Atmospheric Environment*, 45(4):813–823, 2011.
170. K Mengersen, L Morawska, H Wang, N Murphy, F Tayphasavanh, K Darasavong, and NS Holmes. Association between indoor air pollution measurements and respiratory health in women and children in Lao PDR. *Indoor Air*, 21(1):25–35, 2011.
171. K Mengersen, L Morawska, H Wang, N Murphy, F Tayphasavanh, K Darasavong, and N Holmes. The effect of housing characteristics and occupant activities on the respiratory health of women and children in Lao PDR. *Science of the Total Environment*, 409(8):1378–1384, 2011.
172. K Mengersen and P Whittle. Improving accuracy and intelligibility of decisions. *Journal Fur Verbraucherschutz Und Lebensmittelsicherheit-Journal of Consumer Protection and Food Safety*, 6(1):15–19, 2011.
173. L Morawska, K Mengersen, H Wang, F Tayphasavanh, K Darasavong, and NS Holmes. Pollutant Concentrations within Households in Lao PDR and Association with Housing Characteristics and Occupants' Activities. *Environmental Science & Technology*, 45(3):882–889, 2011.
174. A Morton, K Mengersen, M Rajmohan, M Whitby, EG Playford, and M Jones. Funnel plots and risk-adjusted count data adverse events. A limitation of indirect standardisation. *Journal of Hospital Infection*, 78(4):260–263, 2011.
175. S Naish, W Hu, K Mengersen, and S Tong. Spatial and temporal clusters of Barmah Forest virus disease in Queensland, Australia. *Tropical Medicine & International Health*, 16(7):884–893, 2011.
176. S Naish, W Hu, K Mengersen, and S Tong. Spatio-Temporal Patterns of Barmah Forest Virus Disease in Queensland, Australia. *PLoS One*, 6(10), 2011.
177. D Parienta, L Morawska, GR Johnson, ZD Ristovski, M Hargreaves, K Mengersen, S Corbett, CYH Chao, Y Li, and D Katoshevski. Theoretical analysis of the motion and evaporation of exhaled respiratory droplets of mixed composition. *Journal of Aerosol Science*, 42(1):1–10, 2011.
178. ES Pelzer, JA Allan, K Cunningham, K Mengersen, JM Allan, T Launchbury, K Beagley, and CL Knox. Microbial colonization of follicular fluid: alterations in cytokine expression and adverse assisted reproduction technology outcomes. *Human Reproduction*, 26(7):1799–1812, 2011.
179. MI Rolfe, KL Mengersen, KJ Vearncombe, B Andrew, and GF Beadle. Bayesian estimation of extent of recovery for aspects of verbal memory in women undergoing adjuvant chemotherapy treatment for breast cancer. *Journal of the Royal Statistical Society Series C–Applied Statistics*, 60(Part 5):655–674, 2011.

180. J Rousseau and K Mengersen. Asymptotic behaviour of the posterior distribution in overfitted mixture models. *Journal of the Royal Statistical Society Series B-Statistical Methodology*, 73(Part 5):689–710, 2011.
181. IR Smith, JT Rivers, KL Mengersen, and J Cameron. Performance monitoring in interventional cardiology: application of statistical process control to a single-site database. *Eurointervention*, 6(8):955–962, 2011.
182. MA Stanaway, R Reeves, and KL Mengersen. Hierarchical Bayesian modelling of plant pest invasions with human-mediated dispersal. *Ecological Modelling*, 222(19):3531–3540, 2011.
183. MA Stanaway, KL Mengersen, and R Reeves. Hierarchical Bayesian modelling of early detection surveillance for plant pest invasions. *Environmental and Ecological Statistics*, 18(3):569–591, 2011.
184. K Stockton, K Rand, and K Mengersen. Fast Tracking Patients Undergoing Primary Total Hip Replacement - From Research To Clinical Practice. *Internal Medicine Journal*, 41(1):39, 2011.
185. KA Stockton, K Mengersen, JD Paratz, D Kandiah, and KL Bennell. Effect of vitamin D supplementation on muscle strength: a systematic review and meta-analysis. *Osteoporosis International*, 22(3):859–871, 2011.
186. KA Stockton, TV Wrigley, KL Mengersen, DA Kandiah, JD Paratz, and KL Bennell. Test-retest reliability of hand-held dynamometry and functional tests in systemic lupus erythematosus. *Lupus*, 20(2):144–150, 2011.
187. CM Strickland, DP Simpson, IW Turner, R Denham, and KL Mengersen. Fast Bayesian analysis of spatial dynamic factor models for multitemporal remotely sensed imagery. *Journal of the Royal Statistical Society Series C–Applied Statistics*, 60(Part 1):109–124, 2011.
188. R Thomas and K Mengersen. Ophthalmic manifestations and risk factors for mortality of HIV patients in the post-highly active anti-retroviral therapy era: response. *Clinical and Experimental Ophthalmology*, 39(9):919–921, 2011.
189. R Thomas, K Mengersen, RS Parikh, MJ Walland, and J Muliylil. Enter the reverend: introduction to and application of Bayes’ theorem in clinical ophthalmology. *Clinical and Experimental Ophthalmology*, 39(9):865–870, 2011.
190. L Wang, L Morawska, ER Jayaratne, K Mengersen, and D Heuff. Characteristics of airborne particles and the factors affecting them at bus stations. *Atmospheric Environment*, 45(3):611–620, 2011.
191. M Waterhouse, A Morton, K Mengersen, D Cook, and G Playford. Role of overcrowding in meticillin-resistant *Staphylococcus aureus* transmission: Bayesian network analysis for a single public hospital. *Journal of Hospital Infection*, 78(2):92–96, 2011.
192. D Wraith, C Alston, K Mengersen, and T Hussein. Bayesian mixture model estimation of aerosol particle size distributions. *Environmetrics*, 22(1):23–34, 2011.
193. W Yu, W Hu, K Mengersen, Y Guo, X Pan, D Connell, and S Tong. Time course of temperature effects on cardiovascular mortality in Brisbane, Australia. *Heart*, 97(13):1089–1093, 2011.
194. W Yu, K Mengersen, W Hu, Y Guo, X Pan, and S Tong. Assessing the relationship between global warming and mortality: Lag effects of temperature fluctuations by age and mortality categories. *Environmental Pollution*, 159(7):1789–1793, 2011.



195. Assareh H, Smith I, Mengersen K, [2011] Change point detection in risk adjusted control charts, *Statistical Methods in Medical Research*, Online (Online), p1-22
196. I Albert, S Donnet, C Guihenneuc-Jouyaux, S Low-Choy, K Mengersen, and J Rousseau. Combining Expert Opinions in Prior Elicitation. *Bayesian Analysis*, 7(3):503–531, 2012.
197. I Albert, S Donnet, C Guihenneuc-Jouyaux, S Low-Choy, K Mengersen, and J Rousseau. Rejoinder. *Bayesian Analysis*, 7(3):541–546, 2012.
198. H Assareh and K Mengersen. Change Point Estimation in Monitoring Survival Time. *Plos One*, 7(3), 2012.
199. A Barker, K Mengersen, and A Morton. What is the value of hospital mortality indicators, and are there ways to do better? *Australian Health Review*, 36(4):374–377, 2012.
200. SM Cramb, KL Mengersen, and PD Baade. Using Routinely Collected Cancer Data to Infer Risk Factor Patterns. *Asia-Pacific Journal of Clinical Oncology*, 8(3, SD):319, 2012.
201. SM Cramb, KL Mengersen, G Turrell, and PD Baade. Spatial inequalities in colorectal and breast cancer survival: Premature deaths and associated factors. *Health & Place*, 18(6):1412–1421, 2012.
202. MR Donald, C Strickland, CL Alston, R Young, and KL Mengersen. Comparison of three-dimensional profiles over time. *Journal of Applied Statistics*, 39(7):1455–1474, 2012.
203. SB Duffull, G Graham, K Mengersen, and J Eccleston. Evaluation of the Pre-Posterior Distribution of Optimized Sampling Times For the Design of Pharmacokinetic Studies. *Journal of Biopharmaceutical Statistics*, 22(1):16–29, 2012.
204. AC Farr, T Kleinschmidt, P Yarlagadda, and K Mengersen. Wayfinding: A simple concept, a complex process. *Transport Reviews*, 32(6):715–743, 2012.
205. R Fisher, RA O’Leary, S Low-Choy, K Mengersen, and MJ Caley. A software tool for elicitation of expert knowledge about species richness or similar counts. *Environmental Modelling & Software*, 30:1–14, 2012.
206. W Hu, A Clements, G Williams, S Tong, and K Mengersen. Spatial Patterns and Socioecological Drivers of Dengue Fever Transmission in Queensland, Australia. *Environmental Health Perspectives*, 120(2):260–266, 2012.
207. W Hu, G Williams, H Phung, F Birrell, S Tong, K Mengersen, X Huang, and A Clements. Did socio-ecological factors drive the spatiotemporal patterns of pandemic influenza A (H1N1)? *Environment International*, 45:39–43, 2012.
208. X Huang, P Grace, K Weier, and K Mengersen. Nitrous oxide emissions from subtropical horticultural soils: a time series analysis. *Soil Research*, 50(7):596–606, 2012.
209. TG Martin, MA Burgman, F Fidler, PM Kuhnert, S Low-Choy, M McBride, and K Mengersen. Eliciting Expert Knowledge in Conservation Science. *Conservation Biology*, 26(1):29–38, 2012.
210. JM McGree, CC Drovandi, MH Thompson, JA Eccleston, SB Duffull, K Mengersen, AN Pettitt, and T Goggin. Adaptive Bayesian compound designs for dose finding studies. *Journal of Statistical Planning and Inference*, 142(6):1480–1492, 2012.

211. S Naish, K Mengersen, W Hu, and S Tong. Wetlands, climate zones and Barmah Forest virus disease in Queensland, Australia. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 106(12):749–755, 2012.
212. IR Smith, J Cameron, KL Mengersen, and JT Rivers. Evaluation of coronary angiographic projections to balance the clinical yield with the radiation risk. *British Journal of Radiology*, 85(1017):E722–E728, 2012.
213. N White, H Johnson, P Silburn, G Mellick, N Dissanayaka, and K Mengersen. Probabilistic subgroup identification using Bayesian finite mixture modelling: A case study in Parkinson’s disease phenotype identification. *Statistical Methods in Medical Research*, 21(6):563–583, 2012.
214. N White, H Johnson, P Silburn, and K Mengersen. Dirichlet process mixture models for unsupervised clustering of symptoms in Parkinson’s disease. *Journal of Applied Statistics*, 39(11):2363–2377, 2012.
215. W Yu, K Mengersen, X Wang, X Ye, Y Guo, X Pan, and S Tong. Daily average temperature and mortality among the elderly: a meta-analysis and systematic review of epidemiological evidence. *International Journal of Biometeorology*, 56(4):569–581, 2012.
216. KL Mengersen, P Pudlo, and CP Robert. Bayesian computation via empirical likelihood. *Proceedings of the National Academy of Sciences of the United States of America*, 110(4):1321–1326, 2013.
217. J Pitchforth and K Mengersen. A proposed validation framework for expert elicited Bayesian Networks. *Expert Systems with Applications*, 40(1):162–167, 2013.
218. PP-Y Wu and K Mengersen. A review of models and model usage scenarios for an airport complex system. *Transportation Research Part A-Policy and Practice*, 47:124–140, 2013.
219. IR Smith, J Cameron, KL Mengersen, KA Foster, and JT Rivers. Risk modelling in quality clinical registries: monitoring lesion treatment failure rate in percutaneous coronary interventions. *Heart, Lung and Circulation*, 22(3):193-203, 2013.
220. I.R. Smith, M.A. Gardner, B. Garlick, R.D. Brighthouse, J. Cameron, P.S. Lavercombe, K. Mengersen, K.A. Foster, J.T. Rivers. Performance monitoring in cardiac surgery: application of statistical process control to a single-site database. *Heart, Lung and Circulation*, 22(8): 634-641.
221. P.J.L. Whittle, R.Stoklosa, S. Barrett, F.C. Jarrad, J.D. Majer, P.A.J. Martin, K. Mengersen. A method for designing complex biosecurity surveillance systems: detecting non-indigenous species of invertebrates on Barrow Island. *Diversity and Distributions*, 19(5-6): 629-639, 2013.
222. A. Higginson, L. Mazerolle, J. Davis, L. Bedford, and K. Mengersen Protocol for a systematic review: community-oriented policing's impact on interpersonal violent crime in developing countries. *The Campbell Collaboration Library of Systematic Reviews*, 2013-05-02: ISSN 1891-1803, 2013.
223. E. Meijaard, N.K. Abram, J. Wells, A.-S. Pellier, M. Ancrenaz M, D.L.A. Gaveau, R.K. Runting, K. Mengersen. People’s perceptions about the importance of forests on Borneo. *PLoS ONE* 8(9), 2013.
224. J.T. Davis, K. Mengersen, N.K. Abram, M. Ancrenaz, J.A. Wells, E. Meijaard. It’s not just conflict that motivates killing of orangutans. *PLoS ONE* 8(10), 2013.
225. H. Assareh, M.A. Waterhouse, C. Moser, R.D. Brighthouse, K.A. Foster, I.R. Smith, K. Mengersen. Data quality improvement in clinical databases using statistical quality control. *Therapeutic Innovation and Regulatory Science*, 47(1): 70-81, 2013.

226. G. Stewart, K. Mengersen, G.M. Mace, J.A. McNeely, J. Pitchforth, B. Collen. To fund or not to fund: using Bayesian Networks to make decisions about conserving our world's endangered species. *Chance* 26(3), 10-17, 2013
227. S. Naish, K. Mengersen, W. Hu, S. Tong. Forecasting the Future Risk of Barmah Forest Virus Disease under Climate Change Scenarios in Queensland, Australia. *PLoS ONE* 8(5), 2013.
228. R.R. Thomas, K. Mengersen. Is the observed lowering of intraocular pressure due to treatment? *Indian Journal of Ophthalmology*, 61(3): 119-121, 2013.
229. X. Huang, P. Grace, D. Rowlings, K. Mengersen. A flexible Bayesian model for describing temporal variability of N<sub>2</sub>O emissions from an Australian pasture. *Science of the Total Environment*: 454-455: 206-210, 2013
230. X. Huang, P. Grace, W. Hu, D. Rowlings, K. Mengersen. Spatial prediction of N<sub>2</sub>O emissions in pasture: a Bayesian model averaging analysis. *PLoS ONE* 8(6),p1-7, 2013.
231. S. Johnson, L. Marker, K. Mengersen, C.H. Gordon, J. Melzheimer, A. Schmidt-Küntzel, M. Nghikembua, E. Fabiano, J. Henghali, B. Wachter. Modeling the viability of the free-ranging cheetah population in Namibia: an object-oriented Bayesian network approach. *Ecosphere* 4 (7), p 1-19, 2013.
232. S.Y. Kang, J. McGree, K. Mengersen. The impact of spatial scales and spatial smoothing on the outcome of Bayesian Spatial Models. *PLoS ONE* 8(10), p1-14, 2013.
233. R. McVinish, K. Mengersen, D. Nur, J. Rousseau, C. Guihenneuc-Jouyaux. Recentered importance sampling with applications to Bayesian model validation. *Journal of Computational and Graphical Statistics*, 22(1): 215-228, 2013.
234. C. Farr, T. Kleinschmidt, S. Johnson, P.K. Yarlagadda, K. Mengersen. Investigating effective wayfinding in airports: a Bayesian network approach, *Transport*, 29 (1), p90-99, 2014.
- 235 R. Thomas, K. Mengersen, A. Thomas, M.J., Walland. Understanding the causation of primary angle closure disease using the sufficient component cause model, *Clinical and Experimental Ophthalmology*, 42 (6), p522-528, 2014.
236. D. Wraith, K.L. Mengersen, C.L. Alston, J. Rousseau, T. Hussein. Using informative priors in the estimation of mixtures over time with application to aerosol particle size distributions, *The Annals of Applied Statistics*, 8 (1), p232-258, 2014.
237. V. Yu, K. Mengersen, P. Dale, J. Mackenzie, S. Toloo, X. Wang, S. Tong. Epidemiologic patterns of Ross River virus disease in Queensland, Australia, 2001-2011, *American Journal of Tropical Medicine and Hygiene*, 91 (1), p109-118, 2014.
238. S. Naish, P. Dale, J. Mackenzie, J. McBride, K. Mengersen, S. Tong. Climate change and dengue: a critical and systematic review of quantitative modelling approaches, *BMC Infectious Diseases*, 14, p1-14, 2014.
239. V. Yu, K. Mengersen, P. Dale, X. Ye, Y. Guo, L.R. Turner, X. Wang, Y. Bi, W.J. McBride, J. Mackenzie, S. Tong. Projecting future transmission of malaria under climate change scenarios: Challenges and research needs, *Critical Reviews in Environmental Science and Technology*, Online (Online), p1-54, 2014.
240. M. Caley, R.A. O'Leary, R. Fisher, S. Low Choy, S. Johnson, K. Mengersen. What is an expert? A systems perspective on expertise, *Ecology and Evolution*, 4 (3), p231-242, 2014.

241. J. Pitchforth, P.P. Wu, K. Mengersen, Applying a validation framework to a working airport terminal model, *Expert Systems with Applications*, 41 (9), p4388-4400, 2014.
242. P.P. Wu, J. Pitchforth, K. Mengersen. A Hybrid Queue-based Bayesian Network framework for passenger facilitation modelling, *Transportation Research Part C: Emerging Technologies*, 46, p247-260, 2014.
243. C. Mellin, K. Mengersen, C. Bradshaw, M. Caley. Generalizing the use of geographical weights in biodiversity modelling, *Global Ecology and Biogeography*, 23 (11), p1314-1323, 2014.
244. L.L. Buys, K. Mengersen, S. Johnson, N. Van Buuren, A. Chauvin. Creating a Sustainability Scorecard as a predictive tool for measuring the complex social, economic and environmental impacts of industries, a case study: Assessing the viability and sustainability of the dairy industry, *Journal of Environmental Management*, 133, p184-192, 2014.
245. M. Algama, C. Oldmeadow, E. Tasker, K. Mengersen, J.M. Keith. Drosophila 3' UTRs are more complex than protein-coding sequences, *PLoS One*, 9 (5), p1-13, 2014.
246. S. Naish, P. Dale, J. Mackenzie, J. McBride, K. Mengersen, S. Tong. Spatial and temporal patterns of locally-acquired dengue transmission in Northern Queensland, Australia, 1993-2012, *PLoS One*, 9 (4), p1-12, 2014.
247. M.J. Caley, R. Fisher, K. Mengersen. Global species richness estimates have not converged. *Trends in Ecology and Evolution* 29(4): 187-188, 2014.
248. J. Vercelloni, M.J. Caley, M. Kayal, S. Low-Choy, K. Mengersen. Understanding Uncertainties in Non-Linear Population Trajectories: A Bayesian Semi-Parametric Hierarchical Approach to Large-Scale Surveys of Coral Cover *PLoS One*, 9(11), 1-9, 2014.
249. K. Mengersen, C.P. Robert, Co-editors: Big Bayes Stories—Foreword. *Statistical Science*, 29 (1) 1. 2014.
250. F.A. Harden, G. Davis, K. Mengersen. The tertiary debate: A case study analysis of factors considered when applying for university entry by traditional age school leavers in Brisbane, *Australian Universities' Review*, 56 (1), p39-46, 2014.
251. M. Donald, K. Mengersen. Methods for constructing uncertainty intervals for queries of Bayesian nets, *Australian and New Zealand Journal of Statistics*, 56 (4), p407-427, 2014.
252. X. Qi, W. Hu, K. Mengersen, S. Tong. Socio-environmental drivers and suicide in Australia: Bayesian spatial analysis, *BMC Public Health*, 14, p1-10, 2014.
253. E.G. Lamb, K. Mengersen, K.J. Stewart, U. Attanayake, S.D. Siciliano. Spatially explicit structural equation modeling, *Ecology*, 95 (9), p2434-2442, 2014.
254. N.K. Abram, E. Meijaard, M. Ancrenaz, R.K. Runting, J. Wells, D.L. Gaveau, A. Pellier, K. Mengersen. Spatially explicit perceptions of ecosystem services and land cover change in forested regions of Borneo, *Ecosystem Services: science, policy and practice*, 7, p116-127, 2014.
255. S.Y. Kang, J.M. McGree, K.L. Mengersen. Bayesian hierarchical models for analysing spatial point-based data at a grid level: a comparison of approaches, *Environmental and Ecological Statistics*, Online (Online), p1-31, 2014.
256. H. Assareh, K.L. Mengersen. Estimation of the time of a linear trend in monitoring survival time, *Health Services and Outcomes Research Methodology: an international journal devoted to quantitative*

- methods for the study of the utilization, quality, cost and outcomes of health care, 14 (1 - 2), p15-33, 2014.
257. S.Y. Kang, J.M. McGree, P.D. Baade, K.L. Mengersen. An investigation of the impact of various geographical scales for the specification of spatial dependence, *Journal of Applied Statistics*, 41 (11), p2515-2538, 2014.
258. D. Xu, M.H. Cole, K.L. Mengersen, P.A. Silburn, F. Qiu, C. Graepel, G.K. Kerr. Executive function and postural instability in people with Parkinson's disease, *Parkinson's Disease*, p1-8, 2014.
259. S.Y. Kang, J.M. McGree, K.L. Mengersen. The choice of spatial scales and spatial smoothness priors for various spatial patterns, *Spatial and Spatio-temporal Epidemiology*, 10, p11-26, 2014.
260. J.T. Davis, K.L. Mengersen, S. Bennett, L. Mazerolle. Viewing systematic reviews and meta-analysis in social research through different lenses, *SpringerPlus*, 3, p1-9, 2014.
261. N. Abram, E. Meijaard, J. Wells, M. Ancrenaz, A-S. Pellier, R. Runting, D. Gaveau, S. Wich, N. Nardiyono, A. Tjiu, A. Nurcahyo, K. Mengersen. Mapping perceptions of species' threats and population trends to inform conservation efforts: the Bornean orangutan case study, *Diversity and Distributions* 1-13, 2015.
262. M.T. Moores, C.E Hargrave, T. Deegan, M. Poulsen, F. Harden, K. Mengersen. An external field prior for the hidden Potts model with application to cone-beam computed tomography. *Computational Statistics and Data Analysis* 86 27-41, 2015.
263. R. Fisher, R.A. O'Leary, S. Low-Choy, K. Mengersen, N. Knowlton, R.E. Brainard, M.J. Caley. Species Richness on Coral Reefs and the Pursuit of Convergent Global Estimates, *Current Biology* 25 pp. 500-505, 2015.
264. A. Herschtal, L. Te MarVelde, K. Mengersen, Z. Hoseinifard, F. Foroudi, T. Devereux, D. Pham, D. Ball, P. Greer, P. Pichler, T. Eade, A. Kneebone, L. Bell, H. Caine, B. Hindson, T. Kron. Calculating radiotherapy margins in based on bayesian modelling of patient specific random errors, *Physics in Medicine and Biology* 60 1793-1805, 2015.
265. A. Herschtal, L. Te MarVelde, K. Mengersen, F. Foroudi, D. Pham, T. Eade, H. Caine, T. Kron,. Sparing Healthy Tissue and Increasing Tumour Dose Using Bayesian Modelling of Geometric Uncertainties for PTV Personalisation, *International Journal of Radiation Oncology, Biology, Physics* Jun 1:92(2): 446-52, 2015..
266. R.A O'Leary, S. Low-Choy, R. Fisher, K. Mengersen, M.J. Caley. Characterising uncertainty in expert assessments: Encoding heavily skewed. *Plos One*. To appear
267. J.C-F Hsieh, S.M. Cramb, J.M. McGree, N.A.M. Dunn, P.D. Baade, K.L. Mengersen. Does geographic location impact the survival differential between screen- and interval-detected breast cancers? *Stochastic Environmental Research and Risk Assessment*. DOI 10.1007/s00477-015-1050-4.
268. D. Vine, L. Buys, G. Ledwich, J. Bell, K. Mengersen, P.J. Morris, J. Lewis. A framework for understanding and generating integrated solutions for residential peak energy demand. *PLOS ONE*, 10(3) e0121195.
269. J. Arbel, C.K. King, B. Raymond, T. Winsley, K.L. Mengersen. Application of a Bayesian nonparametric model to derive toxicity estimates based on the response of Antarctic microbial communities to fuel contaminated soil. *Ecology and Evolution*. To appear.

270. J.A. Totterdell, D. Nur, K. L. Mengersen. Bayesian Hidden Markov Models in DNA Sequence Segmentation using R: The case of Simian Vacuolating virus (SV40). *Journal of Statistical Computation and Simulation* Vol. 00, No. 00, Month 20XX, 1-31. To appear
271. S.M Cramb, P.D Baade, N.M. White, L.M. Ryan, K.L Mengersen. Inferring lung cancer risk factor patterns through joint Bayesian spatio-temporal analysis. *Cancer Epidemiology* 39(3): 430-439, 2015.
272. N. White, K. Mengersen. Predicting health program participation: a gravity-based, hierarchical modelling approach. *Journal of the Royal Statistical Society JRSS-OA-SC-Mar-14-0052*. To appear
273. A. Herschtal, K. Mengersen, F. Foroudi, T. Kron. A Comparison of Bayesian Models of Heteroscedasticity in Nested Normal Data. *Communications in Statistics - Simulation and Computation*. To appear
274. P. Wu, C.B. Fookes, J. Pitchforth, K. Mengersen. A framework for model integration and holistic modelling of socio-technical systems, *Decision Support Systems*, 71, pp. 14-27, 2015.
275. A.C Farr, F. Ruggeri, K. Mengersen. Prior and posterior linear pooling for combining expert opinions: Uses and impact on Bayesian Networks, *Decision Support Systems*. (In Press), 2015.
276. M.T. Moores, C. Drovandi, K. Mengersen, C.P. Robert. Pre-processing for approximate Bayesian computation in image analysis. *Statistics and Computing*, 25(1), pp. 23-33, 2015.
277. D. Nott, C. Drovandi, K. Mengersen, M. Evans. Approximation of Bayesian predictive p-values with regression ABC.[Working Paper] (Unpublished), 2015.
278. S. Kang, J. McGree, P. Baade, K. Mengersen, A Case Study for Modelling Cancer Incidence using Bayesian Spatio-Temporal Models., *ANZ Journal of Stats*. To Appear.
- 279 K. Mengersen, M.A. MacNeil, M.J. Caley. The potential for meta-analysis to support decision analysis in ecology. *Research Synthesis Methods*. (wileyonlinelibrary.com) DOI: 10.1002/jrsm.1105
280. J. Pitchforth, P. Wu, C. Fookes, K. Mengersen. Processing passengers efficiently: An analysis of airport processing times for international passengers. *Journal of Air Transport Management*. To appear.