

# Associate Professor Carl Scarrott

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## Appointments

2004-Present, SCHOOL OF MATHS AND STATS, UNI OF CANTERBURY, NZ:

Associate Professor in Statistics (2016-Present)

Senior Lecturer Above the Bar in Statistics (2014-2015)

Senior Lecturer (2009-2013)

Lecturer (2004-2008)

Senior administration roles include Head of Discipline in Statistics (2012 - 2015), lead development of new degree programmes in Financial Engineering (2014 - 2015), Honours Programme Director (2015 and 2018 - Present) and led many statistics programme redevelopments. All key roles provided under “Senior Administration/Academic Roles” below.

Developed and taught courses at undergraduate and postgraduate level in Statistics, Data Science and Financial Mathematics, for students from a wide range of backgrounds.

Primary research in extreme value modelling, biostatistics, data science and various forms of statistical modelling with application to medical, environmental and scientific problems.

Statistical consultancy on range of academic, governmental and commercial applications.

2001-2003, CENTRE FOR ECOLOGY AND HYDROLOGY (PART OF NERC), WALLINGFORD, UK:

Higher Scientific Officer. Researcher and statistical consultant, focussed on statistical methods for detection of trends in extreme rainfall and various flooding risk related issues. Key trainer for course on Flood Estimation Handbook methodology and software.

## Adjunct Position

2012-Present, NATIONAL UNI OF IRELAND IN GALWAY: Adjunct Research Fellow. Collaborative research and teaching in biostatistics, visualisation and data science.

## Education

1998-2002, LANCASTER UNIVERSITY: PhD in Statistics entitled ‘Reactor Modelling and Risk Assessment’. Collaborative study with physicists from British Nuclear Fuels Ltd, modelling nuclear reactor temperatures for control and risk assessment purposes. Supervised by Dr G. Tunnicliffe-Wilson and Prof J. Tawn. Key subject areas: spatial statistics, spectral analysis, non-parametric methods, mixed effects modelling and extreme value methods.

1995-1998, LANCASTER UNIVERSITY: First class BSc (Hons) in Mathematics.

## Refereed Journal Publications

Hu, Y. and Scarrott, C.J. (2018). *evmix*: An R package for extreme value mixture modelling, threshold estimation and boundary corrected kernel density estimation. *Journal of Statistical Software* 84(5), 1–27.

Mattle, H., Scarrott, C.J., Claffey, M., Thornton, J., Macho, J., Riedel, C., Söderman, M., Bonafé, A., Piotin, M., Newell, J. and Andersson, T. (2018). Analysis of revascularization in ischemic stroke with EmboTrap (ARISE I study) and metaanalysis of thrombectomy. Accepted for Interventional Neuroradiology.

Hayes, S., Uszynski, M., Motl, R.W., Gallagher, J., Larkin, A., Newell, J., Scarrott, C.J. and Coote, S. (2017). A randomised controlled pilot trial of an exercise plus behaviour change intervention in people with multiple sclerosis: The Step it Up study. *BMJ Open* 7(10), e016336.

Coote, S., Uszynski, M., Herring, M.P., Hayes, S., Scarrott, C.J., Newell, J., Gallagher, J., Larkin, A., Motl, R.W. (2017). Effect of exercising at minimum recommendations of the multiple sclerosis exercise guideline combined with structured education or attention control education. Secondary results of the Step It Up randomised controlled trial. *BMC Neurology* 17(1), 119.

Morton, S.E., Chiew, Y.S., Pretty, C., Moltchanova, E., Scarrott, C.J., Redmond, D., Shaw, G.M. and Chase G. (2016). Effective sample size estimation for a mechanical ventilation trial through Monte-Carlo simulation: Length of mechanical ventilation and ventilator free days. *Mathematical Biosciences* 284(1), 21–31.

Lindsay, A., Lewis, J.G., Scarrott, C.J., Gill, N., Giese, S.P. and Draper, N. (2015). Assessing the effectiveness of selected biomarkers in the acute and cumulative physiological stress response in professional rugby union through non-invasive assessment. *International Journal of Sports Medicine* 36(6), 446–454.

Alvarez-Iglesias, A., Newell, J., Scarrott, C.J. and Hinde, J. (2015). Summarising censored survival data using the mean residual life function. *Statistics in Medicine* 34(11), 1965–1976.

- Murphy, A.W., Cupples, M.E., Murphy, E., Newell, J., Scarrott, C.J., Vellinga, A., Gillespie, P., Byrne, M.C., Kearney, C. and Smith, S.M. (2015). Six year follow-up of the SPHERE cluster randomized controlled trial: effect of tailored practice and patient care plans on secondary prevention of heart disease in general practice. *BMJ Open* 5(11), e007807.
- Lindsay, A., Lewis, J.G., Scarrott, C.J., Gill, N., Draper, N. and Gieseg, S.P. (2015). Changes in acute biochemical markers of inflammatory and structural stress in rugby union. *Journal of Sports Sciences* 33(9), 882–891.
- Fryer, S., Stoner, L., Scarrott, C.J., Lucero, A., Witter, T., Love, R., Dickson, T. and Draper, N. (2015). Forearm oxygenation and blood flow kinetics during a sustained contraction in multiple ability groups of rock climbers. *Journal of Sports Sciences* 33(5), 518–526.
- Fryer, S., Stoner, L., Lucero, A., Witter, T., Scarrott, C.J., Dickson, T., Cole, M., and Draper, N. (2015). Haemodynamic kinetics and intermittent finger flexor performance in rock climbers. *International Journal of Sports Medicine* 36(2), 137–142.
- Rea, A., Rea, W., Reale, M. Scarrott, C.J. (2014). A comparison of spillover effects before, during and after the 2008 financial crisis. *Applied Mathematics* 5(4), 301.
- Loftus, A.E., Newell, J., Scarrott, C.J., O’Muircheartaigh, I., Jennings, S.G. and Loftus, B.G. (2014). Acute childhood asthma in Galway City, West of Ireland from 1985-2005: Relationship to air pollution and climate. *Irish Medical Journal* 107(7), 198-201.
- Fryer, S., Dickson, T., Hillier, S., Witter, T., Stoner, L., Scarrott, C.J., and Draper, N. (2014). A comparison of capillary, venous, and salivary cortisol sampling after intense exercise. *International Journal of Sports Physiology* 9(6), 973–977.
- Moore, J., Manley, B., Park, D. and Scarrott, C.J. (2013). Quantification of wind damage to New Zealand’s planted forests. *Forestry* 86(2), 173-183.
- Casey, D., Murphy, K., Devane, D., Cooney, A., McCarthy, B., Mee, L., Newell, J., Scarrott, C.J., O’Shea, E., Kirwan, C., Gillispe, P. and Murphy, A.W. (2014). The effectiveness of a structured education pulmonary rehabilitation programme for improving the health status of people with moderate and severe chronic obstructive pulmonary disease in primary care: The PRINCE cluster randomised trial. *Thorax* 68(10), 922–928.
- Ingoldsby, H., Webber, M., Wall, D., Scarrott, C.J., Newell, J. and Callagy, G. (2013). Prediction of Oncotype DX and TAILORx risk categories using histopathological and immunohistochemical markers by classification and regression tree (CART) analysis. *The Breast* 22(5), 879–886.

- Alexander, K., Eager, D., Scarrott, C.J. and Nixon, J. (2013). Injury survey of a non-traditional soft-edged trampoline designed to lower equipment hazards. *International Journal of Injury Control and Safety Promotion* 20(1), 42–49.
- Scarrott, C.J. and MacDonald, A. (2012). A review of extreme value threshold estimation and uncertainty quantification. **Invited paper** for *REVSTAT - Statistical Journal* 10(1), 33–59.
- Eager, D., Scarrott, C.J., Nixon, J. and Alexander, K. (2012). Survey of injury sources for a trampoline with equipment hazards designed out. *Journal of Pediatrics and Child Health* 48(7): 577–581.
- Draper, N., Dickson, T., Fryer, S., Blackwell, G., Winter, D., Scarrott, C.J. and Ellis, G. (2012). Plasma cortisol concentrations and perceived anxiety in response to on-sight rock climbing. *International Journal of Sports Medicine* 33(1), 13–17.
- MacDonald, A., Scarrott, C.J., Lee, D.S., Darlow, B., Reale, M. and Russell, G. (2011). A flexible extreme value mixture model. *Computational Statistics and Data Analysis* 55(6), 2137–2157.
- Scott, A. and Scarrott, C.J. (2011). A tale of two cities: Impacts of residential heating intervention measures on air quality and progress towards targets in Christchurch and Timaru, New Zealand. *Atmospheric Research* 45(17), 2972–2980.
- Zhao, X., Scarrott, C.J., Reale, M. and Oxley, L. (2011). GARCH dependence in extreme value model with Bayesian inference. *Mathematics and Computers in Simulation* 81(7), 1430–1440.
- Lee, D.S., Zahari, M., Russell, G., Darlow, B., Scarrott, C.J. and Reale, M. (2011). An exploratory investigation of some statistical summaries of oximeter oxygen saturation data from preterm babies. *ISRN Pediatrics*, 296418.
- Scarrott, C.J. and MacDonald, A. (2010). Risk assessment for critical temperature exceedance in nuclear reactors. *Journal of Risk and Reliability* 224(4), 239–252.
- Alexander, K., Eager, D., Scarrott, C.J. and Sushinsky, J. (2010). Effectiveness of pads and enclosures as safety interventions on consumer trampolines. *BMJ Injury Prevention* 16(3), 185–189.
- Zhao, X., Scarrott, C.J., Reale, M. and Oxley, L. (2010). Extreme value modelling for forecasting the market crisis. *Applied Financial Economics* 20(1), 63–72.
- Scarrott, C.J. and Tunnicliffe-Wilson, G. (2008). Spatial multi-taper spectrum estimation for nuclear reactor modelling. *Computational Statistics and Data Analysis* 53(12), 4384–4402.
- Scarrott, C.J. (2007). Feasibility study: A review of selective editing. *Official Statistics Research Series* 1, 7.

- Logsdon, J., Tunnicliffe-Wilson, G. and Scarrott, C.J. (2003). Prediction of extreme temperatures in a reactor using measurements affected by control action. *Technometrics* 45(2), 159–168.
- Scarrott, C.J. and Tunnicliffe-Wilson, G. (2001). Building a statistical model to predict reactor temperatures. *Journal of Applied Statistics* 28(3), 497–511.

## Refereed Conference Proceedings

Note: non-refereed conference contributions (e.g. talks and posters) are not included for brevity.

- Coote, S., Hayes, S., Uszynski, M., Newell, J., Scarrott, C.J., Gallagher, J., Motl, R.W. (2016). Group aerobic and strength training combined with social cognitive theory based education, results of the Step It Up RCT. *Archives of Physical Medicine and Rehabilitation* 97(12), e4.
- Chiew, Y.S., Docherty, P.D., Dickson, J.L., Moltchanova, E., Scarrott, C.J., Pretty, C., Shaw, G.M. and Chase G. (2016). Simulation-based design of a robust stopping rule to ensure patient safety. Proceedings of the *International Symposium on Intensive Care and Emergency Medicine* 20(S2), 167–168.
- Chiew, Y.S., Docherty, P.D., Redmond, D., Moltchanova, E., Scarrott, C.J., Pretty, C. and Chase G. (2016). Stopping a clinical trial: Simulation-based design of a robust stopping rule using difference in interventional effect on mortality. Proceedings of the *IEEE Conference on Biomedical Engineering and Sciences*, 6.
- Chiew, Y.S., Pretty, C., Moltchanova, E., Scarrott, C.J., Redmond, D., Shaw, G.M. and Chase G. (2015). Reducing the length of mechanical ventilation with significance: A case study of sample size estimation trial design using Monte-Carlo simulation. *IFAC-PapersOnLine* 48(20), 273–278.
- Scarrott, C.J. (2014). Statistical estimation of pollution reductions for meeting government targets. Proceedings of *International Workshop on Statistical Modelling, Göttingen*, 313–318.
- Fryer, S.M., Stoner, L., Scarrott, C.J., Lucero, A., Witter, T., Love, R. and Draper, N. (2014). Oxygen uptake or delivery, which is the limiting factor for intermittent forearm contractions in rock-climbers? *Medicine & Science in Sports & Exercise* 46(5S), 756–757.
- Casey, D., Murphy, K., Declan, D., Cooney, A., McCarthy, B., Mee, L., Newell, J., Scarrott, C.J., O’Shea, E., Kirwan, C., Gillespie, P. and Murphy, A.W. (2014). A cluster randomised controlled trial evaluating the effectiveness of a structured pulmonary rehabilitation education programme in a primary care setting for people with chronic obstructive pulmonary disease (COPD): The PRINCE study. *European Respiratory Journal* 42(57), 2004.

- Scarrott, C.J., Salomon, V. and Scott, A. (2013). Targets and limits for Timaru’s winter PM<sub>10</sub> concentrations. Proceedings of the *21st International Clean Air and Environment Conference*, Sydney.
- Newell, J., Alvarez, A., Scarrott, C.J. and Wall, D. (2012). Modelling time to event data: Where did the time go? Proceedings of the *32nd Conference on Applied Statistics Ireland*, Trinity College Dublin, Ireland.
- Wall, D., Scarrott, C.J., Newell, J., Ingoldsby, H., Callagy, G. and Kerin, M. (2012). Identifying underlying structure in classification and regression trees using surrogate splits. Proceedings of the *International Workshop on Statistical Modelling, Prague*.
- MacDonald, A., Scarrott, C.J. and Lee, D.S. (2010). Semi-parametric modelling for extremes with threshold estimation. Proceedings of the *International Workshop on Statistical Modelling*, Glasgow, UK.
- Rea, A.M., Rea, W., Reale, M., Scarrott, C.J. and Storti, G. (2010). Graphical models of multivariate volatility. Proceedings of the *New Zealand Finance Colloquium*, Auckland, New Zealand, 224.
- MacDonald, A., Scarrott, C.J. and Lee, D.S. (2009). Bayesian inference for an extreme value mixture model. Proceedings of the *Applied Statistics Education and Research Conference*, Newcastle, Australia.
- Zhao, X., Oxley, L., Scarrott, C.J. and Reale, M. (2009). Extreme value GARCH modelling with Bayesian inference. Proceedings of the *International Congress on Modelling and Simulation*, Cairns, Australia, 1391–1397.
- Rea, A.M., Reale, M. and Scarrott, C.J. (2007). Graphical models of multivariate volatility. Proceedings of the *International Congress on Modelling and Simulation*, Christchurch, New Zealand, 1399–1402.
- Zhao, X., Hou, Q., Lee, D.S., Reale, M., Scarrott, C.J., Russell, G., MacDonald, A. and Zahari, M. (2007). A comparison between alternative volatility estimations. Application on blood oxygen concentration of preterm infants. Proceedings of the *International Congress on Modelling and Simulation*, Christchurch, New Zealand, 2027–2033.
- Scarrott, C.J. Tunnicliffe-Wilson, G. and Tawn, J. (2006). Extreme value modelling of reactor risk. Proceedings of the *International Workshop on Statistical Modelling*, Galway, Ireland.
- Scarrott, C.J. and Tunnicliffe-Wilson, G. (2001). Spatial spectral estimation for reactor modelling and control. Proceedings of the *American Statistical Association SPES Section Annual Conference*.

## Working Papers

- Scarrott, C.J. Generalised additive mixed modelling of PM<sub>10</sub> concentrations and assessment of likelihood of meeting governmental targets. In preparation.
- MacDonald, A., Scarrott, C.J. and Lee, D.S. Boundary correction, consistency and robustness of kernel densities using extreme value theory. In preparation.
- Zhao, X., Scarrott, C.J., Oxley, L. and Reale, M. Let the tails speak for themselves: Bayesian extreme value mixture modelling for estimating VaR. Under revision.

## Book Chapters

- Scarrott, C.J. (2016). Univariate Extreme Value Mixture Modelling in “*Extreme Value Modeling and Risk Analysis: Methods and Applications*” edited by Dey and Yan, CRC Press, Boca Raton.
- Scarrott, C.J. (2006). Fourier Transform. In *Encyclopedia of Measurement and Statistics*, Sage Publications.
- Scarrott, C.J. (2006). Ogive. In *Encyclopedia of Measurement and Statistics*, Sage Publications.
- Scarrott, C.J. (2006). Sunflower Plot. In *Encyclopedia of Measurement and Statistics*, Sage Publications.
- Scarrott, C.J. (2006). Tree Diagram. In *Encyclopedia of Measurement and Statistics*, Sage Publications.

## Book Reviews

- Scarrott, C.J. (2013). Extreme Value Methods with Applications to Finance by Serguei Y. Novak. Invited review for Australian & New Zealand Journal of Statistics 55(3), 346–348.

## Software

- Scarrott, C.J., Hu, Y. and Akbar, A. (2018). `evmix`: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.11. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Scarrott, C.J., Hu, Y. and Akbar, A. (2018). `evmix`: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.10. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Scarrott, C.J., Hu, Y. and Akbar, A. (2018). `evmix`: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.9. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>

- Scarrott, C.J., Hu, Y. and Akbar, A. (2018). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.8. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Scarrott, C.J. and Hu, Y. (2017). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.7. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Scarrott, C.J. and Hu, Y. (2015). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.6. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Scarrott, C.J. and Hu, Y. (2015). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.5. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Scarrott, C.J. and Hu, Y. (2015). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.4. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Scarrott, C.J. and Hu, Y. (2014). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.3. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Hu, Y. and Scarrott, C.J. (2014). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.1. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Hu, Y. and Scarrott, C.J. (2013). *evmix*: Extreme Value Mixture Modelling, Threshold Estimation and Boundary Corrected Kernel Density Estimation. Version 0.2.0. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>
- Hu, Y. and Scarrott, C.J. (2013). *evmix*: Extreme Value Mixture Modelling and Threshold Estimation. Version 0.1.0. Available on CRAN. <http://www.math.canterbury.ac.nz/~c.scarrott/evmix>

## Other Publications

- Scarrott, C.J. (2012). Targets and limits for Timaru's winter PM<sub>10</sub> concentrations. Technical report to Environment Canterbury.
- Scarrott, C.J. (2011). PM<sub>10</sub> concentration modelling for Timaru: What is the likelihood of meeting the (revised) NES air quality targets on PM<sub>10</sub> concentrations?. Technical report to Environment Canterbury.



- Scarrott, C.J. (2010). Statistical calibration of PM<sub>10</sub> concentrations within Canterbury airsheds. Technical report to Environment Canterbury.
- Scarrott, C.J. (2009). Statistical estimation and testing of trends in PM<sub>10</sub> concentration trends in Christchurch. Addendum 1: Update for 2008 data. Technical report to Environment Canterbury. Environment Canterbury Report No. R09/27 Addendum 1 ISBN 978-1-86937-956-8. Available from [www.ecan.govt.nz/Plans+and+Reports/Air/PM10Monitoring.htm](http://www.ecan.govt.nz/Plans+and+Reports/Air/PM10Monitoring.htm).
- Scarrott, C.J., Newell, J. and Reale, M. (2008). Statistical estimation and testing of trends in PM<sub>10</sub> concentration trends in Christchurch. Technical report to Environment Canterbury. Environment Canterbury Report No. R09/27 ISBN 978-1-86937-956-8. Available from [www.ecan.govt.nz/Plans+and+Reports/Air/PM10Monitoring.htm](http://www.ecan.govt.nz/Plans+and+Reports/Air/PM10Monitoring.htm).
- Scarrott, C.J. (2008). Statistical review of methodologies for particulate pollution trend detection in Christchurch. Technical report to Environment Canterbury. Environment Canterbury.
- Scarrott, C.J. (2005). A Review of Selective Editing. Statistics New Zealand.
- Scarrott, C.J. (2005). Review of Overseas Trade Selective Editing Methodology. Statistics New Zealand.
- Kay, A., Calver, A., Jones, D., Lamb, R., Scarrott, C.J. and Stewart, L. (2002). National river catchment flood frequency method using continuous simulation. *Technical Report* to DEFRA FD2106, CEH Wallingford.
- Scarrott, C.J. (1998). Improved accuracy steady-state PANTHER model of Wylfa R1 and development of power-shaping for Magnox reactors. Addendum 2: A reactor 2 model and further developments. *Technical Report* TE/WYA/REP/0107/97, BNFL - Magnox.

## Invited Presentations

- MAY. 18. Scarrott, C.J. Statistical modelling of air pollution and the challenges of communication. **Plenary talk** at CASI 2018 Conference, Ireland.
- FEB. 17. Scarrott, C.J. Extreme value threshold estimation and mixture modelling. Seminar at University of Exeter, UK.
- FEB. 17. Scarrott, C.J. Statistical modelling of pollution and forecasting to inform government policy. Seminar at National University of Ireland in Galway, Ireland.
- DEC. 14. Akbar, A. and Scarrott, C.J. Extreme Value Mixture Modelling: P-Splines with GPD and *evmix* Package. **Invited talk** to *International Conference of the ERCIM Working Group of Computational and Methodological Statistics*, Pisa, Italy.
- FEB. 12. Newell, J., Alvarez-Iglesias, A. Scarrott, C.J. and Wall, D. Modelling time to event data: Where did the time go?. Seminar at University of St. Andrews, UK.

- JAN. 12. Scarrott, C.J., MacDonald, A. and Lee, D.S. Non-stationary extreme value mixture modelling. Seminar at University of New Mexico, USA.
- DEC. 11. Zhao, X., Scarrott, C.J. and Reale, M. Bayesian nonparametric modelling of extremes. Seminar at University of Lancaster, UK.
- NOV. 11. Scarrott, C.J., MacDonald, A. and Lee, D.S. Threshold uncertainty under non-stationarity. Seminar at University of Lancaster, UK.
- OCT. 11. Scarrott, C.J. Statistical modelling of winter air pollution. Seminar at Food and Environment Research Agency, York, UK.
- OCT. 11. Scarrott, C.J., MacDonald, A. and Lee, D.S. Non-stationary extreme value mixture modelling. Seminar at Durham University, UK.
- JUN. 11. Scarrott, C.J., MacDonald, A., Zhao, X., Lee, D.S., Reale, M. and Oxley, L. Tails of a statistical extremist. Seminar at National University of Ireland in Galway, Ireland.
- NOV. 10. Scarrott, C.J. Interactive activities for large service courses. Seminar at Centre for Teaching Excellence in Postgraduate Statistics, Lancaster University, UK.
- NOV. 10. MacDonald, A. and Scarrott, C.J. Mixture models for extremes. Seminar at Lancaster University, UK.
- JUL. 08. Scarrott, C.J., MacDonald, A., Lee, D.S., Reale, M., Russell, G., Zahari, M. and Zhao, X. Quantile estimation using extreme value mixture models. An application to neonatal physiological measurements. Seminar at National University of Ireland in Galway, Ireland.
- JUL. 08. Scarrott, C.J., MacDonald, A., Lee, D.S., Reale, M., Russell, G., Zahari, M. and Zhao, X. Quantile estimation using extreme value mixture models. An application to neonatal physiological measurements. Seminar at University of Exeter, UK.
- JUN. 08. MacDonald, A. and Scarrott, C.J. Quantile estimation using extreme value mixture models. **Invited talk** to *Computational and Financial Econometrics Conference 2008*.
- OCT. 05. Scarrott, C.J. A review of selective editing. **Invited talk** to *Key Statistics Conference, Statistics NZ*, Wellington, NZ.
- JUNE 04. Scarrott, C.J. Reactor modelling and spectral analysis. Seminar at Victoria University of Wellington, NZ.