



## Academic Prizes

1995	James Duffy Prize for best student on MSc in Computational Statistics.
1994	Chapman & Hall Prize for Statistics.
1990	BP Chemicals Award for Science A Level.
1988	Watkins and Bradfield Award for Computer Studies GCSE.

## Current Position

Within the School of Education I am Professor of Statistics. I am also co-director of the Centre for Multilevel Modelling (see <http://www.bristol.ac.uk/cmm/> for details) which I have directed or co-directed since March 2010. I am currently School Education Director (from September 2019) and am on the school's Senior Leadership Team (SLT) and Senior Management Team. I have recently covered directing the school's EdD Bristol programme from January- September 2019 and assessment officer and plagiarism officer in 2019. Prior to that I was previously Deputy Research Director and again on SLT from July 2015 until September 2016. Prior to moving schools I was (from April 2007 – July 2014) Professor of Biostatistics in the School of Veterinary Science at the University of Bristol but transferred to the School of Education in August 2014. In the summer of 2017 I stepped down after spending two years setting up and being the director of the Universities fourth research institute, JGI (Bristol Jean Golding Institute for Data Intensive Research) which covers data analytics, infrastructure and applications (see <http://www.bristol.ac.uk/golding/> for details).

## Grants Awarded

**Grant income of over £2.5 million** as principal investigator (ESRC, British Academy, Defra, Home Office, GW4), and over **£7.5 million** as co-investigator (many funders) which is detailed below:

2020 – 2024 **NCRM Senior Fellow** and lead of Centre Partner (University of Bristol) to NCRM (£25k)

2018- 2020 **Turing Fellow** of the Alan Turing Institute – “Bridging the Statistical Skills Gap through Automation and Improved Statistical Training” (£0K)

2018 – 2019 **Principal applicant** on ESRC NCRM grant – “Borrowing Strength – a collaborative software development for Small Area Estimation” (£99k)

2017-2020 – **Co-Sponsor** of Anya Skatova on her UoB VC Fellowship – “Data Analytics and the Science of Wellbeing”

2017-2018 – **Co-Applicant** on UoB Strategic Fund grant – “Urban Vision” (£27k)

2017 – **Principal applicant** on Home Office consultancy project on crime data (£45k)

2017 – **Principal applicant** on GW4 Initiator award – “Data Intensive Research” (£20k)

2017-2022 – **Work stream lead** on NIHR Biomedical Research Centre grant – workstreams on data sharing and environmental and personal assessment in cross-cutting Biostatistics, Evidence Synthesis and Informatics theme (total grant is £22M)

2016-2018 **Principal Applicant** on British Academy grant – “Using Statistical E-books to teach undergraduate students quantitative methods and statistical software” (£115k)

2016-2019 **Sponsor** of Rob French on MRC Skills Development Fellowship – “Investigating the inter-relationship between diabetes and children’s educational achievement” (£433k)

2014-2017 **Co-Applicant** on BBSRC grant – “Validation and Differentiation of Welfare Indicators in Laying Hens” (£483k)

2013-2017 **Principal Applicant** on ESRC grant – “The use of interactive electronic-books in the teaching and application of modern quantitative methods in the social sciences” (£786k)

2013-2018 **Co-Applicant** on 3 related RSPCA grants – “Statistically modelling the racing greyhound population”, “Aetiology of dental and periodontal disease in racing greyhounds” and “Determining the most welfare compatible transport method for dogs, with particular emphasis on racing greyhounds” (~£240k in total)

2012-2013 **Co-Applicant** on EU grant – “Coordinated European Animal Welfare Network” (£380k Euros)

2012-2014 **Principal Applicant** on ESRC grant – “E-books for causal modelling and missing data methods” (£19k)

2012-2015 **Co-Applicant** on NERC grant – “Experimental approaches to determine the impacts of light pollution: field studies on bats and insects” (£650k)

2012-2015 **Co-Applicant** on Dairy Co project – joint supervisor of 2 PhD students – 1 in Nottingham and 1 in Bristol.

2011-2014 **Co-Applicant** on ESRC Research Methods programme node: “LEMMA 3: Longitudinal Effects, Multilevel Modelling and Applications” (£1.4 Million)

2011-2014 **Co-Applicant** on BBSRC Case studentship “A Bayesian decision-theoretic framework to evaluate and optimize decision making for mastitis control in the UK Mastitis Control Scheme.”

2011-2014 **Co-Applicant** on DEFRA grant – “Improving mitigation success where bats occupy houses and historic buildings” (£380k)

2011-2014 **Co-Applicant** on BBSRC grant: ‘The defence cascade as an indicator of animal welfare in the lab and field’ (£725k)

2010-2015 **Co-Applicant** on EPSRC/NERC grant: ‘National Centre for Statistical Ecology – Beyond 2010’ (£1.0 Million)

2010-2012 **Co-applicant** on John Oldacre Foundation grant: ‘Digital Dermatitis in Dairy Cattle’ (£51k)

2009-2013 **Collaborator** on Wellcome Veterinary Training Fellowship: ‘A quantitative (Bayesian) assessment of veterinary surgeons clinical beliefs in order to improve preventive healthcare for dairy cattle’ for Helen Higgins (£313k)

2009-2012 **Principal Applicant** on ESRC NCeSS programme node : “e-STAT –NCeSS quantitative node” (£1.1 Million)

2008-2011 **Principal Applicant** on DEFRA grant entitled ‘A County Parish Holding Herd (CPHH) level spatial and temporal analysis of the Randomised Badger Culling Trial (RBCT) dataset’ (£286k)

2008-2011 **Co-applicant** on ESRC Research Methods programme node: "STRUCTURES for building, learning, applying and computing statistical modelling" (£1.2 Million)

2006-2009 **Principal Applicant** on ESRC grant R000231190: ‘Sample Size, Identifiability and MCMC Efficiency in Complex Random Effect Models.’ (£174k)

2006-2010 **Sponsor** of Martin Green on Wellcome Clinical Fellowship Application: “Use of Bayesian statistical methods to investigate farm management strategies, cow traits and decision-making in the prevention of clinical and sub-clinical mastitis in dairy cows” (£406k)

2005-2008: **Named collaborator** on ESRC Research Methods programme node: “Lemma: Learning environment for multilevel methodology and applications” based at the University of Bristol (£670k)

1999-2003: **Named research officer** on ESRC grant R000238217: ‘Applications and understandings of multilevel modelling in the social sciences.’ (graded outstanding) at the Institute of Education, London (£392k)

1998-1999: **Named research officer** on ESRC grant R000222732: ‘Developing graphical and inferential tools for social science data analysis.’ (graded outstanding) at the Institute of Education, London. (£41k)

## Publications

Current H-Index score is 44 on Google Scholar (includes books etc.)

Total citations at 17/2/20 = 20,762 with i10-index = 86

Note that RAE/REF next to citations refers to outputs returned in research exercises either by me or coauthors

## **Books (most recent editions)**

Lawson, A.B., Browne, W.J., and Vidal-Rodeiro, C. (2003). *Disease Mapping using WinBUGS and MLwiN*, London: Wiley. (Cited 476)

Rasbash, J., Browne, W.J., and Goldstein, H. (2004). *The MLwiN command interface version 2.0*, London: Institute of Education, University of London. (Cited 15 – RAE2001 IOE)

Browne, W.J. (2009). *MCMC Estimation in MLwiN*. Version 2.13. Bristol: Centre for Multilevel Modelling, University of Bristol. (Cited 827)

Rasbash, J., Steele, F., Browne, W.J., and Goldstein, H. (2009). *A User's Guide to MLwiN*, Version 2.10, Bristol: Centre for Multilevel Modelling, University of Bristol. (cited 4096 – RAE2001 IOE – note MLwiN software has 1965 additional cites)

Browne, W.J., Golalizadeh Lahi, M. and Parker, R.M.A. (2009) *A Guide to Sample Size Calculations for Random Effect Models via Simulation and the MLPowSim Software Package*. University of Bristol. (cited 63)

Browne, W.J., Charlton, C.M.J., Michaelides, D.T., Parker, R.M.A., Cameron, B., Szmaragd, C., Yang, H., Zhang, Z., Goldstein, H., Jones, K., Leckie, G., and Moreau, L. (2017) *A Beginner's Guide to Stat-JR's TREE Interface version 1.0.5* Universities of Bristol & Southampton (Cited 4 – note Stat-JR software has 20 cites)

Browne, W.J., Charlton, C.M.J., Michaelides, D.T., Parker, R.M.A., Cameron, B., Szmaragd, C., Yang, H., Zhang, Z., Goldstein, H., Jones, K., Leckie, G., and Moreau, L. (2017) *An Advanced User's Guide to Stat-JR version 1.0.5* Universities of Bristol & Southampton (Cited 2)

Michaelides, D.T., Yang, H., Browne, W.J., Charlton, C.M.J., and Parker, R.M.A. (2017) *eBook USER GUIDE for the eBook system developed as part of the Stat-JR software package* Universities of Southampton & Bristol

Browne, W.J., Parker R.M.A., Charlton, C., Michaelides, D. and Moreau, L. (2017) *Stat-JR LEAF Workflow Guide (1.0.5)* Universities of Bristol & Southampton (cited 2)

Browne, W.J., Charlton, C. and Parker R.M.A. (2017) *Developing a statistical analysis assistant assistant using the Stat-JR software system (1.0.5)* Universities of Bristol & Southampton

## **Book Chapters**

Rasbash, J. and Browne, W.J. (2001). Non-hierarchical multilevel models. In Leyland, A. and Goldstein, H. (Ed.) *Multilevel modelling with Health Applications*, p 93-105. John Wiley and Sons, Chichester. (Cited 108)

Goldstein, H. and Browne, W. J. (2002). Multilevel factor analysis modelling using Markov Chain Monte Carlo (MCMC) estimation. In Marcoulides and Moustaki (Eds.), *Latent Variable and Latent Structure Models*. p 225-243. Lawrence Erlbaum, New Jersey. (Cited 71)

Browne, W.J. and Rasbash, J. (2004). Multilevel Modelling. In Bryman, A. and Hardy, M. (Ed.) *Handbook of Data Analysis*, p 459-479. Sage Publications, London. (Cited 67)

Goldstein, H. and Browne, W.J. (2005). Multilevel Factor Analysis Models for Continuous and Discrete Data. In Maydeu-Olivares, A and McArdle, J.J. (Eds.), *Contemporary psychometrics: a festschrift for Roderick P. McDonald*, p 453-475. Lawrence Erlbaum, New Jersey. (Cited 46 – RAE2008 Bristol-Educ)

Rasbash J. and Browne W. J. (2008). Non-Hierarchical Multilevel Models. In De Leeuw, J. and Meijer, E. (Eds.), *Handbook of Quantitative Multilevel Analysis*. p 301-334 Springer, New York (Cited 124).

Browne, W.J. and Stryhn, H. (2009) Introduction to Bayesian Analysis. In Dohoo, I., Martin, W. and Stryhn, H. (Eds.) *Veterinary Epidemiologic Research (2<sup>nd</sup> edition)* p 637-661 AVC Inc, Charlottetown.

Stryhn, H. and Browne, W.J. (2012) Introduction to Bayesian Analysis. In *Methods in Epidemiologic Research* p675-700 Eds. Dohoo, I, Martin, S.W. and Stryhn, H.

Lambert, P.S., Browne, W.J. and Michaelides, D.T. (2015). Contemporary developments in statistical software for social scientists. In *Innovations in Digital Research Methods* editors P.J. Halfpenny and R. Proctor, SAGE p 143-160 (cited 3)

Brignell, CJ, Dryden, IL and Browne, WJ (2016) Covariance Weighted Procrustes Analysis. In Turaga, P.K. and Srivastava, A. (Eds) *Riemannian Computing in Computer Vision* p189-209 Springer, New York. (cited 3)

Goldstein, H. and Browne, W.J. (2016). Multilevel Models. In *Wiley Stats Ref* p1-8 (cited 45)

## **Journal Articles**

Browne, W.J. and Draper D. (2000). Implementation issues in the Bayesian fitting of multilevel models. *Computational Statistics*, 15: 391-420. (Cited 257 – RAE2001 IOE)

Goldstein, H., Rasbash, J., Browne, W.J., Woodhouse, G. and Poulain, M. (2000). Multilevel models in the study of dynamic household structures. *European Journal of Population*, 16: 373-387. (Cited 54)

Browne, W. J., Goldstein, H., Woodhouse, G., and Yang, M. (2001). An MCMC algorithm for adjusting for errors in variables in random slopes multilevel models. *Multilevel Modelling Newsletter*, **13** (1): 4-10. (Cited 13)

Browne, W.J., Goldstein, H. and Rasbash, J. (2001). Multiple membership multiple classification (MMMC) models. *Statistical Modelling* **1**: 103-124. (Cited 371 – RAE2008 Bristol Vet)

Yang, M, Goldstein, H., Browne, W.J. and Woodhouse, G. (2002). Multivariate multilevel analyses of examination results. *Journal of Royal Statistical Society Series A*. **165**: 137-153. (Cited 48 – RAE2008 QMW Epi)

Browne, W.J., Draper, D., Goldstein, H. and Rasbash, J. (2002). Bayesian and Likelihood methods for fitting multilevel models with complex level-1 variation. *Computational Statistics and Data Analysis*. **39**: 203-225. (Cited 73)

Blatchford, P., Goldstein, H., Martin, C. and Browne, W. J. (2002). A Study of Class Size Effects in English School Reception Year Classes. *British Educational Research Journal*. **28**: 169-185. (Cited 131 - RAE 2008 IOE)

Goldstein, H., Browne, W.J., and Rasbash, J. (2002). Multilevel Modelling of Medical Data. *Statistics in Medicine*. **21**: 3291-3315. (Cited 373)

Goldstein, H., Browne W.J., and Rasbash, J. (2002). Partitioning Variation in Multilevel Models. *Understanding Statistics*. **1**: 223-232. (Cited 658)

Simonite, V., and Browne, W.J. (2003). Estimation of a large cross-classified multilevel model to study academic achievement in a modular degree course. *Journal of Royal Statistical Society Series A*. **166**: 119-134. (Cited 20 – RAE 2008 OxBrooks Educ)

Browne, W.J. (2004). An illustration of the use of reparameterisation methods for improving MCMC efficiency in crossed random effect models. *Multilevel Modelling Newsletter* **16** (1): 13-25 (Cited 32)

Molyneux, A., Lewis, S., Antoniak, M., Browne, W.J., McNeill, A., Godfrey, C., Madeley, R., and Britton, J. (2004). Prospective study of the effect of exposure to other smokers in high school tutor groups on the risk of incident smoking in adolescence. *American Journal of Epidemiology* **159**: 127-132. (Cited 35 – RAE 2008 Nott Epi)

Steele, F., Goldstein, H. and Browne, W.J. (2004). A General Multilevel Multistate Competing Risks Model for Event History Data, with an application to a study of contraceptive use dynamics. *Statistical Modelling* **4**: 145-159. (Cited 134 – RAE 2008 Bristol Educ)

Browne, W.J. (2005). MCMC Estimation for Random Effect Modelling: The MLwiN Experience. In *Maximising Data Value, Data Use & Re-Use* pp 63-72, Association for Survey Computing.

Browne, W.J. (2005). An illustration of the use of reparameterisation methods for improving MCMC efficiency in crossed random effect models. *Proceedings in Quantitative Biology, Shape Analysis, and Wavelets, LASR2005*, pp31-34, University of Leeds.

Browne, W.J., Subramanian, S.V., Jones, K. and Goldstein, H. (2005). Variance partitioning in multilevel logistic models that exhibit over-dispersion. *Journal of Royal Statistical Society Series A*. **168**: 599-613. (Cited 363 – RAE 2008 Bristol Vet)

Brignell, C.J., Browne, W.J. and Dryden I.L. (2005). Covariance weighted Procrustes Analysis. *Proceedings in Quantitative Biology, Shape Analysis, and Wavelets, LASR2005*, pp 107-110, University of Leeds. (Cited 1)

Dryden, I.L., Mian, S., Browne, W.J, Handley, K., di Nisio, R. and Rees, R. (2005). Statistical Analysis of SELDI Protein Chip Data from Breast Cancer Cell Lines exposed to Chemotherapeutic Agents. *Proceedings in Quantitative Biology, Shape Analysis, and Wavelets, LASR2005*, pp 43-46, University of Leeds. (Cited 1)

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Browne, W.J. (2006). MCMC algorithms for constrained variance matrices. *Computational Statistics and Data Analysis*. **50**: 1655-1677. (Cited 43 – RAE 2008 Bristol Vet)

Browne, W.J. and Draper D. (2006). A Comparison of Bayesian and likelihood methods for fitting multilevel models (with discussion). *Bayesian Analysis*. **1**: 473-550. (Cited 606 – RAE 2008 Bristol Vet)

Green, M.J., Bradley, A.J. , Newton, H. and Browne, W.J. (2006) Seasonal Variation of Bulk Milk Somatic Cell Counts in UK dairy herds: Investigations of the Summer Rise. *Preventive Veterinary Medicine*. **74**: 293-308. (Cited 93)

Browne, W.J., McCleery, R.H., Sheldon, B.C., and Pettifor, R.A. (2007). Using cross-classified multivariate mixed response models with application to life history traits in great tits (*Parus major*). *Statistical Modelling* **7**: 217-238. (Cited 51)

Green, M.J., Bradley, A.J., Medley G.F., and Browne, W.J. (2007) Cow, Farm and Management Factors during the Dry Period that Determine the Rate of Clinical Mastitis after Calving. *Journal of Dairy Science* **90**: 3764--3776. (Cited 178 – RAE 2008 Nott. Vet)

Green M, Huxley J, Madouasse A, Browne W, Medley G, Bradley A, Biggs A, Breen J, Burnell M, Hayton A, Husband J, Reader J, Statham J and Thorne M, (2007). Making Good Decisions on Dry Cow Management to Improve Udder Health - Synthesising Evidence in a Bayesian Framework. *Cattle Practice* **15**:201-206. (Cited 9)

Jang M.J, Lawson A.B., Browne, W.J. and Lee, Y. (2007). A comparison of the Hierarchical likelihood and Bayesian approaches to spatial-temporal modelling. *Environmetrics* **18**: 809-821. (Cited 14)



Green, M.J., Bradley, A.J., Medley, G.F. and Browne, W.J. (2008). Cow, Farm and Herd Management Factors in the Dry Period Risk Associated with Raised Somatic Cell Counts in Early Lactation. *Journal of Dairy Science*. **91**: 1403-1415. (Cited 71 – REF2014 Bris Vet)

Littin KE., Acevedo A., Browne, W., Edgar JL., Mendl M., Owen, D., Sherwin CM., Würbel H., Nicol CJ. (2008) Towards Humane Endpoints: Behavioural Changes Precede Clinical Signs of Disease in a Huntington's Disease Model. *Proc Roy Soc B*. **275**: 1865 -1874 (Cited 21 – REF2014 Bristol Vet)

Browne, W.J., Gosalizadeh, M., Green M.J. , and Steele F. (2009) The use of simple reparameterizations to improve the efficiency of Markov chain Monte Carlo estimation for multilevel models with applications to discrete time survival models *Journal of Royal Statistical Society, Series A*. 172: 579-598 (Cited 69 – REF2014 Bristol Vet)

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Nicol, C.J., Caplen, G., Edgar, J. and Browne, W.J. (2009) Associations between welfare indicators and environmental choice in laying hens. *Animal Behaviour* 78 413-424 (Cited 127 – REF2014 Bristol Vet)

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Brignell, C.J., Dryden, I.L., Gattone, S.A., Park, B., Leask, S., Browne, W.J. and Flynn, S. (2010). Surface shape analysis with an application to brain cortical surface analysis in schizophrenia. *Biostatistics*. 11: 609-630 (Cited 14 – REF2014 Nott. Maths)

Browne, W.J., Caplen, G., Edgar, J., Wilson, L.R. and Nicol, C.J. (2010) Consistency, transitivity and inter-relationships between measures of choice in environmental preference tests with chickens. *Behavioural Processes* 83: 72-78 (Cited 18)

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Hoicka, E. Soy-Telli, B., Prouten, E., Leckie, G., Browne,W.J., Nurmsoo,E. and Gattis, M. (2020) The Early Social Cognition Inventory (ESCI): A Valid and Reliable Parent-Report Measure of Social Cognition from Birth to 47 Months. *Submitted*.

Huitsing, G., Lodder, G.M.A., Browne, W.J., Oldenburg, B., van der Ploeg, R., Veenstra, R. (2020) A Large-Scale Replication of the Effectiveness of the KiVa Antibullying Program: A Randomized Controlled Trial in the Netherlands. *Submitted*.

Percie du Sert, N., Ahluwalia, A., Alam, S., Avey, M.T., Baker, M. Browne, W.J., Clark, A. Cuthill, I.C., Dirnagl, U., Emerson, M., Garner, P. Holgate, S.T., Howells, D.W., Hurst, V. Karp, N.A., Lidster, K., MacCallum, C.J., Macleod, M., Pearl, E.J., Petersen, O., Rawle, F., Reynolds, P., Rooney, K. Sena, E.S., Silberberg, S.D., Steckler, T. and Würbel, H. (2020) ARRIVE 2019 Explanations and Elaboration: updated guidelines to improve the reporting of in vivo experiments. *Submitted*. (cited 4)

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Reyher, K., Lumsdon, C., Browne W.J., and Main, D.C.J (2019). Using an infrared thermometer for early detection of mastitis in dairy cows. *Submitted*.

Stuijzand, B.G., Baddeley, R and Browne, W.J. (2019) The Role of Reinforcement Learning in 'Optimal' Search Strategies. *Submitted*

Statham, P., Hannuna, S, Jones, S., Campbell, N, Colborne, G.R., Browne, W.J., Paul, E.S. and Mendl, M. (2020) Quantifying defence cascade responses as indicators of pig affect and welfare using computer vision methods. *Submitted*.

Browne, W.J., Wonham, K. and Rooney N.J. (2019) Using simulation modelling to evaluate the effects of potential interventions and initiatives aimed at reducing the number of racing greyhounds and the potential knock-on effects on the general dog rehoming population. *In prep*.

Rooney, N.J., Wonham, K., Casey, R.A., Blackwell, E.J. and Browne W.J. (2019) Weekly and daily tooth brushing by care staff reduces gingivitis and calculus in racing greyhounds. *In prep*.

van Erp, S. and Browne, W.J. (2019) Bayesian multilevel structural equation modeling: An investigation into robust, default prior distributions. *In prep*.

Wonham K, Browne W.J., Casey RA, Blackwell E and Rooney NJ. (2019) Development of a method to rapidly assess periodontal health in conscious dogs. *In prep*.

Browne, W.J., Price, T. and Steele, F.A. (2019) Using logistic regression to speed up simulation-based sample size calculations. *To write*.

Browne, W.J., Charlton, C.M., Schmidt, T. and Tzavidis, N. (2019) Using MCMC estimation with Box-Cox transforms for Small Area Estimation. *To write*.

## **Discussion Contributions/ Editorials**



Browne, W.J. (2006). Discussion of “Sentencing Convicted Felons in the United States: A Bayesian Analysis Using Multilevel Covariates by I. Pardoe and R.R. Weidner” *Journal of Statistical Planning and Inference*. **136**: 1462-1465.

Browne, W.J. and Goldstein, H. (2006). Discussion of “Double Hierarchical Generalized Linear Models” by J.A. Nelder and Y-J Lee *Journal of the Royal Statistical Society, Series C*. **55**: 173-174

Browne, W.J. and Steele, F. (2009) Editorial: Recent advances in multilevel modelling methodology and applications *Journal of the Royal Statistical Society, Series A*. **172**: 535-536 (Cited 8)

## **Other publications**

Browne, W.J. (1995). Applications of Hierarchical Modelling. *MSc. thesis*, University of Bath. (cited 3)

Browne, W.J. (1998). Applying MCMC Methods to Multi-level Models. *PhD. thesis*, University of Bath. (Cited 94)

Browne, W.J. (2001). Review of ‘BRCAPRO: A model and software for genetic counselling of women at high risk of hereditary breast and ovarian cancer.’ *ISBA Bulletin* **8**(4).

Pettifor, R.A., Sheldon, B.C., Browne, W.J., Rasbash J. and McCleery, R.H. (2003). Partitioning of phenotypic variance in life-history traits in the great tit *Parus Major*. *University of Nottingham Statistics Research Report 03-07*.

Sheldon, B.C., Pettifor, R.A., Browne, W.J., Rasbash J. and McCleery, R.H. (2003). Partitioning of phenotypic covariance among life-history traits in the great tit *Parus Major*. *University of Nottingham Statistics Research Report 03-08*.

Dryden, I.L., Mian, S., Browne, W.J, Handley, K., di Nisio, R. and Rees, R. (2005). Statistical Analysis of Surface-Enhanced Laser Desorption/Ionization (SELDI) Protein Chip Data from Breast Cancer Cell Lines exposed to Chemotherapeutic Agents. *University of Nottingham Statistics Research report 05-02*.

Browne, W.J. (2008). Review of ‘Best Practices for Teaching Statistics and Research Methods in the Behavioural Sciences by DS Dunn, RA Smith and BC Beins.’ *Animal Welfare* **17**, 415-416.

Browne, W.J. (2010). Review of ‘Biostatistics for Animal Science by M. Kaps and W. Lamberson.’ *Laboratory Animals*.

Browne, W.J. (2013). Review of ‘Bayesian Item Response Modeling: Theory and Applications. By J.P. Fox. *Australian and New Zealand Journal of Statistics*

## Recent and Forthcoming Presentations

September 2019 “Panel discussion on teaching statistics with software” – RSS Conference, Belfast.

June 2019 “The Borrowing Strength collaborative project” – NCRM Showcase, Manchester.

March 2019 “Developing a Statistical Analysis assistant for Small Area Estimation in StatJR” – 12<sup>th</sup> International Multilevel Conference, Utrecht.

Sept 2018 “Automating Multilevel analysis and statistical teaching preparation” – Talk at the RSS Conference, Cardiff.

July 2018 “An Introduction to StatJR” and “Using StatJR’s Statistical Analysis assistant to assist in automating statistical analysis” – talks at the ESRC Research Methods Festival, University of Bath.

June 2018 “How do we solve the statistics skills gap?” – plenary at the School of Education doctoral conference.

June 2018 “The use of MCMC methods to estimate discrete time survival / event history models with applications in health and veterinary science” and “Statistical software developments at the Centre for Multilevel Modelling” – seminars to the Biostatistics group, University of Gottingen

November 2017 “The British Academy funded Statistical eBook grant” – meeting of the Q-step co-ordinators at the Nuffield foundation.

September 2017 “Progress on the British Academy funded Statistical eBook grant” – British Academy Higher-Level Strategy group for Quantitative Skills, London

November 2016 “Using Computers to Teach Statistics to Reluctant Researchers” – GSOE Conversations in Education seminars.

September 2016 “Creating a Statistical Analysis Assistant using Stat-JR” – RSS conference, Manchester.

July 2016 “What are Statistical eBooks” – Research Methods Festival, University of Bath.

February 2016 “Stat-JR: eBooks, workflows and other software developments at the Centre for Multilevel Modelling” – University of Durham Statistics department seminar

September 2015-July 2017: Over 30 talks to various groups about the Jean Golding Institute in my tenure as director.

December 2015 “Statistical Software developments at the Centre for Multilevel Modelling” – University of Nottingham Statistics group seminar

November 2015 “Stat-JR, eBooks, workflows and other software developed at the multilevel modelling centre.” – University of Kent Statistics department seminar

June 2015 “The use of electronic books for teaching statistical ideas with application to statistical ecology” NCSE Summer Workshop, Falmouth

April 2015 “The use of eBooks and statistical analysis assistant to teach multilevel modelling” 10th International Multilevel Conference Utrecht (Plenary)

September 2014 “A Statistical Analysis Assistant – the future or folly?” RSS Conference, University of Sheffield.

February 2014 “Stat-JR – history, interoperability and eBooks” University of Reading Statistics group seminar

November 2013 “Statistical interoperability – what, why, when and how? The Stat-JR experience” IBS BIR / RSS Statistical Computing meeting on software interoperability, London

October 2013 “Stat-JR and other software developed at the multilevel modelling centre” Open University Statistics group seminar.

September 2013 “The Use of Interactive E-Books for teaching Bayesian Statistical Modelling and Missing Data Methods using the Stat-JR package”. RSS Conference, University of Northumbria

July 2013 “ The Use of Interactive E-Books for Teaching Bayesian Statistical Modelling using the Stat-JR package” 4<sup>th</sup> Channel Network Conference, International Biometric Society, University of St Andrews.

May 2013 “The Stat-JR software package and its interoperability and e-book functionality”, Spatial modelling group, School of Geographical Sciences, University of Bristol

March 2013: “The Stat-JR package and its interoperability and e-book functionality”, 9th International Multilevel Conference Utrecht

November 2012: "Statistical software developed at the Centre for Multilevel Modelling", LSHTM seminar.

October 2012: "Statistical software developed at the Centre for Multilevel Modelling", University of Bath statistics group seminar.

September 2012 “Using the STAT-JR software package for statistical analysis.” Structure and Uncertainty workshop (poster), Bristol.

September 2012 “Using the STAT-JR software package for statistical analysis.” RSS annual conference, Telford.

July 2012. “Using the STAT-JR software package for statistical analysis”. Research Methods Festival, University of Oxford,

February 2012: “Statistical Software at the Centre for Multilevel Modelling” – Invited talk at University of Nottingham Vet School.

December 2011: “Statistical Software at the Centre for Multilevel Modelling” – Invited talk to Glasgow statistics group.

December 2011: “It shouldn’t happen to a vet’s data – using statistics in research.” – Invited talk to Glasgow vet school.

November 2011: “Statistical Software at the Centre for Multilevel Modelling” – Invited talk to MRC Biostatistics unit.

October 2011: “It shouldn’t happen to a vet’s data – using statistics in research.” – Talk to RSS GAS Section.

July 2011: “The STAT-JR software package and it's application to statistical ecology” – Talk at the NCSE conference in Bath

March 2011: “Using Discrete Time Survival Models to Model Breakdown with TB of Cattle Using the Randomised Badger Culling Trial Dataset” – Invited talk at INFER conference, University of Warwick.

March 2011: “Statistical Software at the Centre for Multilevel Modelling” – Plenary talk at the Amsterdam International Multilevel Modelling conference

November 2010: “Invited Discussion Meeting on Capture-Recapture: Developments and Applications” – Rothamsted.

September 2010: “Using Discrete time survival models to model breakdown with TB of cattle using the Randomised Badger Culling Trial dataset” - Royal Statistical Society Conference, Brighton

September 2010: “Statistical Methods for linking motivational priority and welfare indicator approaches to animal welfare assessment” – Royal Statistical Society Conference, Brighton

July 2010: “Estimating badger numbers from badger signs using the RBCT dataset” - International Statistical Ecology Conference, Kent

July 2010: “What is Multilevel Modelling” – ESRC Research Methods festival, Oxford

July 2010: “MCMC Efficiency in Multilevel Models” – ESRC Research Methods festival, Oxford

September 2009: “Sample size calculations for cross-classified models in education” – Royal Statistical Society Conference, Edinburgh.

May 2009: “It shouldn’t happen to a vet’s data – using random numbers in research.” – Inaugural lecture – Dept of. Clinical Veterinary Science, Bristol.

May 2009: “Classification of Mass spectrometry data using principal components analysis, Bayesian MCMC modelling and a deterministic peak finding algorithm” - Veterinary Pathology, Infection and Immunity, Bristol.

April 2009: “Simple Methods to improve MCMC Efficiency in random effect models.” –LSHTM statistics seminar

April 2009: “Sample size calculations for cross-classified models” – 7th Amsterdam International Multilevel modelling conference.

December 2008: “Simple Methods to improve MCMC Efficiency in random effect models.” - University of Cambridge statistics lab.

September 2008: “Simple Methods to improve MCMC Efficiency in random effect models.” Royal Statistical Society Conference, Nottingham.

September 2008: “Predicting environmental preferences in laying hens.” Royal Statistical Society Conference, Nottingham.

August 2008: “Predicting environmental preferences in laying hens.” 42nd Congress of the International Society of Applied Ethology, Dublin

July 2008: “Simple Methods to improve MCMC Efficiency in random effect models.” International Biometrics Conference, Dublin, Ireland.

June 2008: “Sample size calculations in multilevel modelling” – ESRC Research Methods Festival, Oxford.

January 2008: Using complex random effect models in epidemiology and ecology” – University of Reading statistics group.

December 2007: “The use of centered parameterisations and Markov chain Monte Carlo (MCMC) estimation to fit discrete time survival models” – RSS general applications section meeting, London.

September 2007: “Random effect modelling of great tit nesting behaviour” – RSS environmental statistics section meeting, London.

June 2007: “Using complex random effect models in epidemiology and ecology” – University of Liverpool epidemiology group seminar.

May 2007: “Using complex random effect models in epidemiology and ecology” – University of Bristol statistics department seminar.

May 2007: “Using complex random effect models in epidemiology and ecology” – South West local group of the RSS, University of Plymouth seminar.

April 2007: “Using SMCMC for normal response multilevel models” – 6th Amsterdam International Multilevel modelling conference.

March 2007: “Using complex random effect models in epidemiology and ecology” – University of Bath statistics department seminar.

February 2007: “Using complex random effect models in epidemiology and ecology” - University of St Andrews NCSE seminar.

February 2007: “Classification of Mass spectrometry data using principal components analysis, Bayesian MCMC modelling and a deterministic peak finding algorithm” – University of St Andrews statistics department seminar.

December 2006: “Classification of Mass spectrometry data using principal components analysis, Bayesian MCMC modelling and a deterministic peak finding algorithm” - University of Lancaster statistics department seminar.

September 2006: “‘Counting chickens and other tales’ Using random effect models and MCMC estimation in applied statistics research.” – University of Bristol School of clinical veterinary science interview presentation.

July 2006: “Sample size calculations in multilevel modelling” – ESRC research methods festival, Oxford.

June 2006: “Random effect modelling of great tit nesting behaviour” - RSS General Applications section meeting, London.

February 2006: “Classification of Mass spectrometry data using principal components analysis, Bayesian MCMC modelling and a deterministic peak finding algorithm” - University of Warwick statistics department seminar.

February 2006: “MCMC Estimation for random effect modelling - The MLwiN experience” University of Warwick epidemiology and ecology seminar.

February 2006: “Classification of Mass spectrometry data using principal components analysis, Bayesian MCMC modelling and a deterministic peak finding algorithm” – RSS North East local group seminar.

January 2006: “MCMC Estimation for random effect modelling - The MLwiN experience”. University of Nottingham medical statisticians seminar.

December 2005: "Classification of Mass spectrometry data using principal components analysis, Bayesian MCMC modelling and a deterministic peak finding algorithm" - University of Kent statistics department seminar.

September 2005: "MCMC Estimation for random effect modelling - The MLwiN experience" International Conference on Survey Research Methods

July 2005: "An illustration of the use of reparameterisation methods for improving MCMC efficiency in crossed random effect models." Leeds Annual Statistical Research Workshop

March 2005: "An illustration of the use of reparameterisation methods for improving MCMC efficiency in crossed random effect models." 5th Amsterdam International Multilevel modelling conference.

February 2005: "Partitioning of Variance in Multilevel Models." MRC Biostatistics Unit, University of Cambridge seminar series.

January 2005: "Partitioning of Variance in Multilevel Models." Centre for Multilevel Modelling, Institute of Education seminar series.

June 2004: "An MCMC algorithm for problems involving 'constrained' variance matrices with applications in multilevel modelling." University of Reading Statistics seminars.

April 2004: "Using cross-classified multivariate mixed response models with applications to life-history traits in great tits (*Parus major*)." Workshop on Uncertainty, Complexity and Predictive Reliability of Environmental/Biological Models. University of Nottingham.

December 2003: "An MCMC algorithm for problems involving 'constrained' variance matrices with applications in multilevel modelling." Leeds and Bradford RSS Local group.

April 2003: "An MCMC algorithm for problems involving 'constrained' variance matrices with applications in multilevel modelling" 4<sup>th</sup> International Amsterdam conference on multilevel analysis.

April 2003: "'The Birds and the Bees' and the Birds again – Applying crossed random effect models to reproduction data" Young Statistician's conference, University of Cambridge.

March 2003: "An MCMC algorithm for problems involving 'constrained' variance matrices with applications in multilevel modelling" University of Kent statistics department seminar.

September 2002: "An MCMC algorithm for problems involving 'constrained' variance matrices with applications in multilevel modelling" Royal Statistical Society conference, Plymouth.

June 2002: 'MCMC Estimation of Multilevel Models in the MLwiN software package'. (poster presentation). Valencia VII Bayesian statistics conference, Tenerife.

May 2002: 'An Introduction to Bayesian (Hierarchical) Modelling using MLwiN'. (with Harvey Goldstein) Journées de Statistiques Conference, Brussels.

May 2002: 'Multilevel Modelling of Complex Data Structures Using MCMC'. (with Harvey Goldstein) Journées de Statistiques Conference, Brussels.

February 2002: 'A beginner's guide to MCMC estimation for multilevel modelling in MLwiN'. Trinity College, Dublin statistics department seminar.

February 2002: 'MCMC methods for fitting multilevel models with complex level 1 variation (heteroskedasticity) and extensions to constrained variance matrices.' Trinity College, Dublin statistics department seminar.

February 2002: 'Extending multilevel models to complex cross classified and multiple membership data structures (with Harvey Goldstein and Jon Rasbash).' RSS General Applications section meeting, London.

November 2001: 'MCMC methods for fitting multilevel models with complex level 1 variation (heteroskedasticity) and extensions to constrained variance matrices.' Bath statistics department seminar.

October 2001: 'An interface between the MLwiN and WinBUGS packages' poster at 'Practical Bayes using WinBUGS' meeting at the RSS, London.

August 2001: 'MCMC estimation of multilevel models in the MLwiN software package.' European Meeting of Statisticians 2001, Maderia.

May 2001: 'An introduction to Hierarchical, Cross-classified and multiple membership models'. invited presentation to Claritas Senior Analysts conference.

April 2001: 'Fitting models to complex data involving hierarchical, crossed and multiple membership structures (with Harvey Goldstein)' invited presentation at the 3<sup>rd</sup> International Amsterdam conference on multilevel analysis.

March 2001: 'MCMC Methods for fitting multilevel models with complex level 1 variation.' University of Nottingham statistics department seminar.

February 2001: 'Fitting complex model structures to large datasets. A Monte Carlo Markov Chain (MCMC) algorithm to fit multiple membership multiple classification models.' University of Southampton statistics department seminar.

December 2000: 'Multilevel modelling in MLwiN : What's new and what's still to come.' Imperial College Statistics department seminar.

December 2000: 'MLwiN software for multilevel modelling.' Workshop on Software Support for Bayesian Analysis, NIPS 2000 conference, Breckenridge, Colorado.



November 2000: ‘Multilevel modelling in MLwiN : What’s new and what’s still to come.’ RSS Highland Group Seminar, University of Aberdeen.

October 2000: ‘MCMC Methods for fitting multilevel models with complex level 1 variation.’ University of Lancaster statistics department seminar.

October 2000: ‘An Introduction to Bayesian Statistics, Simulation Methods and Monte Carlo Markov chain (MCMC) methods.’ MLwiN Fellows group meeting at the Institute of Education.

September 2000: ‘MCMC Estimation of cross-classified and multiple membership models.’ First European Conference on Spatial and Computational Statistics, Ambleside.

August 2000: ‘Computational issues in MCMC fitting of multilevel models (with David Draper).’ Compstat 2000 conference. Utrecht.

May 2000: ‘MCMC Methods for fitting multilevel models with complex level 1 variation.’ ISBA 2000 conference. Crete.

May 2000: ‘MLwiN : Hierarchical/multilevel modelling software (poster presentation with David Draper).’ ISBA 2000 conference, Crete.

May 2000: ‘MCMC Methods for fitting multilevel models with complex level 1 variation.’ University College, London statistics department seminars.

April 2000: ‘MCMC Methods for fitting multilevel models with complex level 1 variation.’ Young Statisticians conference, LSHTM, London.

March 2000: “Class size Project.” (joint talk with P. Blatchford, H. Goldstein, C. Martin and V. Moriarty) Talk at the DFEE, London.

February 2000: ‘Multilevel modelling in MLwiN : What’s new and what’s still to come.’ University of Bath Statistics department internal seminars.

February 2000: ‘Applying MCMC methods to multilevel models.’ LSHTM statistics seminar.

### **Teaching (at University of Bristol)**

2019/2020: Unit lead on 1 units for postgraduates in School of Education (“Introduction to Quantitative Methods/Statistics in Education” )

2018/2019: Unit lead on 2 units for postgraduates in School of Education (“Introduction to Quantitative Methods/Statistics in Education” and “Exploring and Visualising Data in Education”) and also teaching on “Advanced Quantitative Methods/Multivariate Statistical Methods”  
Supervising 8 MSc dissertations

2017/2018: Unit lead on 2 units for postgraduates in School of Education (“Introduction to Quantitative Methods/Statistics in Education” and “Exploring and Visualising Data in Education”) and also teaching on “Advanced Quantitative Methods/Multivariate Statistical Methods”  
Supervising 10 MSc dissertations.

2015/2016 and 2016/2017 Teaching bought out by URI directing role

2014/2015: Teaching 2 courses (with Liz Washbrook) for postgrads in School of Education (“Introduction to Quantitative Methods/Statistics in Education” and “Advanced Quantitative Methods/Multivariate Statistical Methods”)

2013/2014: Teaching main statistics lectures to vets and Animal Behaviour and Welfare (ABW) students along with stats DSE, additional stats lectures to ABW.

2012/2013: Teaching main statistics lectures to vets and ABW students along with stats and epidemiology DSE, additional stats lectures to ABW.

: Supervised 3 3<sup>rd</sup> year dissertation projects.

2011/2012: Teaching main stats lectures to vets and ABW students along with stats and epidemiology DSE, additional stats lectures to ABW and statistics lectures on Meat Science MSc.

: Supervised 2 3<sup>rd</sup> year dissertation projects.

2010/2011: Teaching main stats lectures to vets and ABW students along with stats and epidemiology DSE and statistics lectures on Meat Science MSc.

: Supervised 2 3<sup>rd</sup> year dissertation projects.

2009/2010: Teaching additional stats lectures on 2<sup>nd</sup> year Scientific Methods and Ethics unit, Epidemiology DSE on vet course and statistics lectures on Meat Science MSc.

: Co-Supervising 2 3<sup>rd</sup> year dissertation project

2008/2009: Teaching additional stats lectures on 2<sup>nd</sup> year Scientific Methods and Ethics unit

: Supervising 1 3<sup>rd</sup> year dissertation project

2007/2008: Co-supervising 2 3<sup>rd</sup> year dissertation projects

### **Teaching (at University of Nottingham)**

2006/2007: Statistical Concepts and Methods (Autumn term) to 130 second year Mathematics BSc students.

: Fundamentals of Statistics (Autumn term) to 5 MSc. in statistics students.

: Supervising 1 MMath dissertation student.

2005/2006: Maths for engineering management (Autumn term) to 105 final year engineering and mathematics BSc students.

: Analysis of Data (Full year) to 11 final year mathematics BSc students and MSc. statistics students.

: Advanced Topics in Statistics (Spring term) to 2 MMath fourth year students – teaching 1 of the 3 topics ‘Multilevel modelling’ (11 lectures) including writing the material from scratch.

: Supervising 1 final year project student and 2 MMath dissertation students on various applied statistics topics.

2004/2005: Maths for engineering management (Autumn term) to 110 final year engineering and mathematics BSc students.

: Analysis of Data (Full year) to 11 final year mathematics BSc students.

: Supervising 3 final year project students and 1 MMath dissertation students on various applied statistics topics.

2003/2004: Maths for engineering management (Autumn term) to 135 final year engineering and mathematics BSc students.

: Analysis of Data (Spring term) to 30 final year mathematics BSc students.

: Supervised 2 final year project students on the topic 'multilevel modelling'.

2002/2003: I joined the statistics group in the School of Mathematical Sciences at the University of Nottingham partway through the 2<sup>nd</sup> semester of the academic year 2002/2003. My teaching was therefore limited to setting and marking an extensive assignment for final year mathematics students (23 students) as part of their 'Analysis of Data' course.

1994-1998: In my MSc. and PhD. time at Bath I took undergraduate tutorials for both first and second undergraduate mathematics students and for first year Business students.

The bulk of my other teaching experience has been teaching short courses to other academic staff, non-academic researchers and PhD students. These courses, of which there have been over 50 to date, are typically 3-days long but range from ½ day to 10 days.

### **Short Courses and Workshops (Teaching)**

January 2020: Introductory 3-day MLwiN workshop. University of Bristol (with CMM team).

July 2019: 1-day Small Area Estimation workshop, University of Bristol (with Nikos Tzaridis).

July 2017: Introductory 3-day MLwiN workshop. University of Bristol (with CMM team).

January 2017: Introductory 3-day MLwiN workshop. University of Bristol (with CMM team).

July 2016: 1-day Stat-JR Workflow & eBook workshop, University of Bristol (with CMM team).

January 2016: Introductory 3-day MLwiN workshop. University of Bristol (with CMM team).

September 2015: 3-day Advanced MCMC modelling workshop. University of Southampton (with George Leckie).

February 2015: 1-day Writing eBooks using the Stat-JR package. University of Edinburgh (with CMM team)

January 2015: 3-day Introductory MLwiN workshop. University of Bristol (with CMM team).

September 2014: 1-day Writing eBooks using the Stat-JR package. University of Bristol (with CMM team)

July 2014: 1-day Modelling Longitudinal Data using the Stat-JR package. RMF, Oxford (with George Leckie)

April 2014: 3-day Advanced MCMC modelling workshop. University of Bristol (with CMM team).

April 2014: 2-day Introductory MLwiN workshop. ESRI Dublin (with George Leckie).

January 2014: 3-day Introductory MLwiN workshop. University of Bristol (with CMM team).

September 2013: 3-day Research Multilevel Workshop. University of Bristol (with CMM team).

July 2013: ½ day workshop on Multilevel Modelling. Lowestoft as part of NCSE summer conference

July 2013: 1-day Modelling Longitudinal Data using the Stat-JR package. University of Bristol (with Fiona Steele).

June 2013: Introductory 3-day MLwiN workshop. University of Swansea (with Fiona Steele).

April 2013: 3-day Discrete Response modelling workshop. University of Bristol (with CMM team).

January 2013: Introductory 3-day MLwiN workshop. University of Bristol (with CMM team).

July 2012: 3-day Workshop using the Health Survey of England dataset, Cathie Marsh Centre, University of Manchester (with Mark Tranmer, Vanessa Higgins and Ian Plewis).

April 2012: 3-day Advanced MCMC modelling workshop. University of Bristol (with CMM team).

January 2012: Introductory 3-day MLwiN workshop. University of Bristol (with CMM team).

September 2011: 3-day Research Multilevel Workshop. University of Bristol (with CMM team).

January 2011: Introductory 3-day MLwiN workshop. University of Bristol (with CMM team).

October 2010: 3-day Workshop using the Health Survey of England dataset, Cathie Marsh Centre, University of Manchester (with Mark Tranmer, Vanessa Higgins and Ian Plewis).

December 2009: Introductory 3-day MLwiN workshop. Swedish Society for Social Medicine & The Swedish Epidemiological Association, Malmö, Sweden

October 2009: Introductory 3-day MLwiN workshop. University of Edinburgh (with Jon Rasbash).

April 2009: Half day workshop on “An Introduction to Random Effect modelling.” at Society for Veterinary Epidemiology and Preventive Medicine (SVEPM) Annual Conference, London.

March 2008: Introductory 3-day MLwiN workshop. University of Stirling (with Jon Rasbash).

March 2008: Half day workshop on “Does using WinBUGS make you Bayesian?” at Society for Veterinary Epidemiology and Preventive Medicine (SVEPM) Annual Conference, Liverpool.

August 20<sup>th</sup>-24<sup>th</sup> 2007: Workshop on “An Introduction to Bayesian Analysis and MCMC methods” for University of Prince Edward Island, Canada (with Henrik Stryhn).

August 7<sup>th</sup>-18<sup>th</sup> 2005: Summer school on ‘Likelihood-based inference for hierarchical/mixed statistical models’ for DINA (Nordic Informatics Network in the Agricultural Sciences) Greve, Denmark. (with Henrik Stryhn)

July 7<sup>th</sup> 2005: Workshop on MLwiN & WinBUGS for ESRC Summer School, University of Southampton. (with Nicky Best)

April 6<sup>th</sup>-8<sup>th</sup> 2005: Introductory MLwiN workshop. University of Bristol (with MLwiN core team).

March 29<sup>th</sup>-31<sup>st</sup> 2004: Introductory MLwiN workshop. University of Bristol (with MLwiN core team).

June 30<sup>th</sup>- July 2<sup>nd</sup> 2003: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

April 7<sup>th</sup>-9<sup>th</sup> 2003: Introductory MLwiN workshop. University of Bristol (with MLwiN core team).

January 8<sup>th</sup>-10<sup>th</sup> 2003: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

December 9<sup>th</sup>-11<sup>th</sup> 2002: MCMC estimation in MLwiN workshop. Massey University, Palmerstone North, New Zealand (with David Draper).

September 11<sup>th</sup>-13<sup>th</sup> 2002: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

June 13<sup>th</sup>-14<sup>th</sup> 2002: Introductory MLwiN workshop. University of Verona, Italy (with Andy Jones).

May 8<sup>th</sup>-10<sup>th</sup> 2002: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

April 8<sup>th</sup>-10<sup>th</sup> 2002: Introductory MLwiN workshop. University of Bristol (with MLwiN core team).

January 8<sup>th</sup>-10<sup>th</sup> 2002: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

September 5<sup>th</sup>-7<sup>th</sup> 2001: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

June 27<sup>th</sup>-29<sup>th</sup> 2001: Introductory MLwiN workshop. University of Birmingham (with Jon Rasbash and Tony Fielding).

June 14<sup>th</sup>-15<sup>th</sup> 2001: Introductory MLwiN workshop. University of Verona, Italy (with Andy Jones).

April 25<sup>th</sup>-27<sup>th</sup> 2001: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

April 11<sup>th</sup> 2001: Workshop on Bootstrap and MCMC methods in MLwiN. University of Amsterdam, Holland (with Harvey Goldstein).

February 26<sup>th</sup>-27<sup>th</sup> 2001: Introductory MLwiN workshop for the ONS. Institute of Education, London (with MLwiN core team).

January 8<sup>th</sup>-10<sup>th</sup> 2001: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

September 6<sup>th</sup>-8<sup>th</sup> 2000: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

June 12<sup>th</sup>-14<sup>th</sup> 2000: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

April 5<sup>th</sup>-7<sup>th</sup> 2000: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

March 25<sup>th</sup>-26<sup>th</sup> 1999: Introductory MLwiN workshop. Institute of Education, London (with MLwiN core team).

April 6<sup>th</sup> 1998: MCMC methods in MLwiN workshop. Institute of Education, London (with David Draper)

## **Other Academic Commitments**

### **PhD and EdD supervision**

I currently jointly supervise 4 PhD students in Education, Xiaowei Lui, Jinglu Zhang, Jing Zhang and Rachel Helme (GSOE) and 1 Turing PhD student in Vet Science, Leo Gorman. I also supervise or co-supervise 8 EdD students, Lim Kim Ying, Gloria Leung, Joanna Yeung, Eunice Chan, Diah Restu Susanti, Selene Sin Ting Ho and Yiu Sing Chan, Emma, Salari for their EdD dissertations. I jointly supervised (with Professor Guoxing Yu) PhD student Suh Kwon who completed his PhD in 2019 in Education, Bristol.

I jointly supervised (with Professor George Leckie) PhD student Beatriz Gallo Cordoba who completed her PhD in 2019 in Education, Bristol.

I jointly supervised (with Professor Steve Harris) PhD student, Chris Draper who completed his PhD in 2017 in Biology, Bristol.

I jointly supervised (with Professor Mike Mendl, Dr James Hodge and DR Liz Paul) PhD student, Amanda Deakin who completed her PhD in 2017 in Vet Science, Bristol.

I jointly supervised (with Dr Nicola Rooney, Dr Emily Blackwell and Dr Rachel Casey) PhD student, Katie Wonham who completed her PhD in 2017 in Vet Science, Bristol.

I jointly supervised (with Professor Fiona Steele) PhD student, Toni Price who completed her PhD in 2017 in AQM, Bristol

I jointly supervised (with Dr Roland Baddeley) PhD student, Bobby Glenn Stuijzand who completed his PhD in 2016 in AQM, Bristol

I jointly supervised (with Dr Jane Murray and Dr Rachel Casey) PhD student, Lizzie Rowe who completed her PhD in 2015 in Vet Science, Bristol.

I jointly supervised (with Professor David Main) PhD student, Cheryl Heath who completed her PhD in 2015 in Vet Science, Bristol.

I jointly supervised (with Professor Ian Dryden) 2 PhD. students, Chris Brignell and Kelly Handley who completed their PhDs in the School of Mathematical Sciences, University of Nottingham in 2006 and 2007 respectively.

I co-supervised the PhDs of Aurelian Madouasse at the vet school, University of Nottingham who completed his PhD in 2009, Helen Higgins who completed her PhD in 2013, Peter Down and Peers David who completed their PhDs in 2016 with Professor Martin Green.

I am Visiting Professor at Atlantic Veterinary College, University of Prince Edward Island and was a member of the supervisory committee for 1 student, Elmabrok Masaoud who completed his PhD in 2009

### **Journal Editing and Reviewing**

I was (2007-2010) an Associate Editor of the Journal of the Royal Statistical Society, Series A.

I was an Associate Editor of the Biometrical Journal (2011-2018)

I have refereed for many journals including recently JRSS A, JRSS C, Computational Statistics and Data Analysis, Computational Statistics, Psychometrika, Statistics in Medicine, Statistics and Computing, and Statistical Methods for Medical Research.

I have reviewed several grant applications for the ESRC, BBSRC, MRC and DEFRA. I serve on the ESRC's review college and recently their Centres panel. I also serve on the UKRI's Future Leaders grants college and am an EEF Statistical Analysis plan reviewer.

I have reviewed end of grant reports for the ESRC, the UK Department of Health and the US National Science Foundation.

### **Teaching/Examining roles**

I am School Education Director for the School of Education, University of Bristol (2019-2022)

I am external examiner of all Statistics and Operational Research courses for the School of Mathematics, University of Cardiff (2018-2021)

I was the programme director for the EdD (Bristol) programme (2019)

I was assessment officer and plagiarism officer for the School of Education (2018-2019)

I was external examiner of Mathematics (Service modules) for the University of Plymouth (2007-2011).

I was external examiner of all Statistics courses (UG & PG) for University College, London (2011-2015).

I was the programme director for the BSc. in Animal Behaviour and Welfare at Bristol for 2009-2010.

I was seminar organiser for the statistics and probability seminars in the school of Mathematical Sciences in Nottingham from 2003 to 2007.

I was course director for the course 'BSc. in Mathematics and Management studies' in 2006/7. I was also a member of the exam monitoring committee and the quality and standards committee in the school at Nottingham.

### **Learned Bodies**

I am a Turing Fellow of the Alan Turing Institute (see <https://www.turing.ac.uk/people/researchers/william-browne>) 2018-2020

I have been a Fellow of the RSS (Royal Statistics Society) since 2000 and was a student fellow for several years.

I have been on the Education Committee (2014-15) and was on the Academic Affairs Committee (2011-2014), a member of the council of the RSS (2010-2013) and of the executive of the RSS (2012-2013) and of the President Nominating Committee (2013). I was also programme chair for the RSS conference in 2015. I am currently on the Teaching Statistics Special Interest Group. I served as a member of the General Applications Section (GAS) Committee of the RSS in June 2003-2006 and again in 2010-2011.

I was also elected a member of East Midlands local group committee of the RSS in June 2003 and was Chair from 2004 - 2007.

I was a member of the British and Irish Regional Committee of the International Biometrics Society (2012-2014)

### **School Governing**

I was a school governor at Wrrington Church of England primary school from April 2015 until September 2018 and chair of their curriculum committee from 2016-2018. I am now an associate member of the standards committee of the Federation of Wrrington and Burrington primaries. I have been on the members committee for the Cathedral Schools Trust (Multiple Academy Trust) since its launch in 2016 and am now chair of the committee since December 2016.

### **PhD examination**

I was internal/external examiner for the following PhD theses:

- 2004 University of Warwick Biology (external)
- 2006 University of Nottingham Mathematics (internal)
- 2008 University of Kent Statistics (external)
- 2008 University of Bristol Vet Science (internal x 2)
- 2009 University of Kent Statistics (external)
- 2009 University of Reading Statistics (external)
- 2009 University of Lancaster Statistics (external)
- 2010 University of Southampton Statistics (external)
- 2010 Trinity College Dublin, Statistics (external)
- 2011 University of Edinburgh, Vet Science (external)
- 2011 University of Zurich, Biostatistics (external)
- 2011 University of Bristol, Chemistry (internal)
- 2012 University of Bristol Vet Science (internal)
- 2014 University of Bath, Statistics/Biology (external)
- 2014 London School of Economics, Law/Methodology (external)
- 2015 University of Nottingham, Statistics (external)
- 2016 University of St Andrews, Statistics (external)



2018 University of Southampton, Statistics (external)  
2018 University of Glasgow, Statistics (external)  
2018 University of Bristol, Education (independent chair)  
2019 University of Bristol Education (internal)  
2020 University of Bristol Education (internal)

### **Other responsible roles**

I am co-director of the Centre for Multilevel Modelling at the University of Bristol.  
I was Deputy Director of Research, Graduate School of Education from 2015-2016 and a member of the GSOE SLT. I am currently again a member of SLT for 2018-2019.  
I am an Associate Member of the National Centre for Statistical Ecology.  
I was a member of the NC3Rs Reporting Guidelines Working Group.  
I am a Member of the Independent Statistical Standing Committee for the funder CHDI foundation

## **Computing Experience**

As part of my collaborative work with the Centre for Multilevel Modelling team I have written functions in the C++ programming language that are incorporated into the statistical package, *MLwiN*. I have also programming experience in *Visual Basic* as part of my work on the *MLwiN* package. I have programmed in C for a number of years and have also programmed in C++, *Python*, *Pascal*, *Basic*, *JAVA* and *UNIX* shell language. I have experience using both PCs and *UNIX* based machines. I have extensively used the statistical software packages *S-Plus*, *R*, *MINITAB*, *Genstat*, *MLn* and *WinBUGS*, have used the *Frontpage* web publishing package and the *HTML* language, and am familiar with standard word processor and spreadsheet packages.

## **Previous Academic Positions**

- 2007-2014 University of Bristol – School of Veterinary Sciences**  
I was Professor of Biostatistics for 7 years out in Langford before moving to the Graduate School of Education in August 2014.
- 2003-2007 University of Nottingham**  
I was appointed at the University of Nottingham as a lecturer in statistics in the Department of Mathematical Sciences in February 2003. I taught many courses and supervised 2 PhD students. I was promoted to Associate Professor in September 2006.
- 1998-2003 Institute of Education, London**  
In October 1998 I started work as a Research Officer in the Multilevel Models project team on ESRC research grant R000222732. I was a key member of the team with responsibility for the MCMC methodology features in the *MLwiN* software package. The main area of my work involved using the MCMC methods developed in my PhD. thesis to allow the fitting of more models in the *MLwiN* computer package. The work was varied and also included assisting with user support, writing manual chapters and assisting with the running of workshops on the use of the package. The position allowed me to conduct statistical methodology research and

see the results being used by our 3,000+ users whilst being part of a well-respected research team. Over the 4-year period I did much collaborative work with many academics from other institutions, and was supported for the last 3 years by the ESRC grant R000238117 that started in September 1999 and on which I was a named researcher.

## **Interests and Activities**

I am interested in virtually all sports. My main sport at University was basketball, which I played for 8 years at university. I represented the University of Bath for 6 years, and South West Universities for two years and was awarded my half Blue for basketball. On the organisational side I was club treasurer for 3 years and club secretary for 2 years and am a Grade 3 basketball referee. I also played for the University of London team for 1 year. I also played at Nottingham for the University postgraduate and staff team.

After university I took up half marathon running. I have run 5 half-marathon races. In 2001/2002 I took a challenge to raise money for the cancer ward that cared for my grandfather through running and ran 575 miles in a year. In Bath, I played football for the university postgraduate team. I also played 5-a-side football in Nottingham.

Since moving to Bristol much of my spare time is taken up with my family however I still try to go jogging when I get the opportunity. I also enjoy swimming, walking, reading, listening to music and playing poker.

## **Referees**

1. Professor Kelvyn Jones  
Centre for Multilevel Modelling  
University of Bristol  
University Road,  
Bristol BS8 1SS  
UK

2. Professor Ian Dryden  
School of Mathematical Sciences,  
University of Nottingham,  
Nottingham,  
NG7 2RD, UK.

3. Professor David Main  
Royal Agricultural University,  
Cirencester,  
Gloucestershire  
GL7 6JS  
UK