Curriculum Vitae of

PROFESSOR WILLIAM JOHN BROWNE

Work Address from 1st August 2014:
Centre for Multilevel Modelling and
Graduate School of Education
University of Bristol
35 Berkeley Square
Bristol BS8 1JA
Tel. 0117 331 0649 (W)

Date of Birth: 13/04/1972
Marital Status: Married

Nationality: British
Children: 2 daughters

Education

1995-1998 **University of Bath** PhD in Statistics.
Research Topic:
Applying Markov Chain Monte Carlo methods to multilevel models.

1994-1995 **University of Bath** MSc in Computational Statistics with Distinction
Main subjects studied:
Statistical Inference, Simulation, Numerical Analysis, *C* Programming, Documentation and Graphics, Data Analysis, Generalised Linear Models, Computationally Based Inference, Multivariate Analysis, Sequential Analysis and Smoothing Methods, Complex Stochastic Structures.

1990-1994 **University of Bath** BSc in Statistics with 1st class honours
Main subjects studied in final year:
Sample Surveys, Quality Control and Reliability, Statistical Inference, Stochastic Processes, Applied Statistics, Operational Research, Time Series, Generalized Linear Models, Multivariate Analysis and Experimental Design, Advanced Computer Graphics.
First Year Average: 82% Second Year Average: 78%
Final Year Average: 80%

1988-1990 **Neath College, Neath**
4 A Levels Pure Mathematics(A), Applied Mathematics(A), Computing(B) Physics(B)
1 AS Level Pure Mathematics with Mechanics(A)

1983-1988 **Dwr-Y-Felin Comprehensive School, Neath**
1 O Level Mathematics(A)
8 GCSES English Language(A), English Literature(A), Physics(A), French(A), Chemistry(A), Computer Studies(A), Geography(A), Music(C)

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

I am co-director of the Centre for Multilevel Modelling (which I have directed or co-directed since March 2010) and Professor of Statistics at the University of Bristol. I have also become director of the Universities fourth research institute, JGI (Bristol Jean Golding Institute for Data Intensive Research). I was deputy research director, a member of the Senior Leadership Team of the Graduate School of Education from July 2015 until recently. 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 Graduate School of Education in August 2014.

Publications

Current H-Index score is 33 on Google Scholar (includes books etc.)
Total citations at 7/07/16 = 11,877 with i10-index = 58
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 340)

Rasbash, J., Browne, W.J., and Goldstein, H. (2004). *The MLwiN command interface version 2.0*, London: Institute of Education, University of London. (Cited 13 – RAE2001 IOE)

Browne, W.J. (2009). *MCMC Estimation in MLwiN*. Version 2.13. Bristol: Centre for Multilevel Modelling, University of Bristol. (Cited 533)

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 3776 – RAE2001 IOE)

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 33)

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. (2016) *A Beginner's Guide to Stat-JR's TREE Interface version 1.0.4* Universities of Bristol & Southampton (Cited 2)

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. (2016) *An Advanced User's Guide to Stat-JR version 1.0.4* Universities of Bristol & Southampton

Michaelides, D.T., Yang, H., Browne, W.J., Charlton, C.M.J., and Parker, R.M.A. (2016) *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. (2016) *Stat-JR LEAF Workflow Guide (1.0.4 beta release)* 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 139* - includes 2008 cites for different article!)

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 62)

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 44)

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 39 – 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 * see 2001 article).

Browne, W.J. and Stryhn, H. (2009) Introduction to Bayesian Analysis. In Dohoo, I., Martin, W. and Stryhn, H. (Eds.) *Veterinary Epidemiologic Research (2nd 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.

Brignell, CJ, Dryden, IL and Browne, WJ (2015) Covariance Weighted Procrustes Analysis. In Turaga, P.K. and Srivastava, A. (Eds) *Riemannian Computing in Computer Vision* p189-209 Springer, New York. (cited 1)

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 2)

Journal Articles

Browne, W.J. and Draper D. (2000). Implementation issues in the Bayesian fitting of multilevel models. *Computational Statistics*, 15: 391-420. (Cited 197 – 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 45)

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 10)

Browne, W.J., Goldstein, H. and Rasbash, J. (2001). Multiple membership multiple classification (MMMC) models. *Statistical Modelling* **1**: 103-124. (Cited 254 – 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 40 – 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 63)

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 103 - RAE 2008 IOE)

Goldstein, H., Browne, W.J., and Rasbash, J. (2002). Multilevel Modelling of Medical Data. *Statistics in Medicine.* **21**: 3291-3315. (Cited 284)

Goldstein, H., Browne W.J., and Rasbash, J. (2002). Partitioning Variation in Multilevel Models. *Understanding Statistics.* **1**: 223-232. (Cited 430)

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 17 – RAE 2008 OxBrooks Educ)

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 22 – 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 95 – RAE 2008 Bristol 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 19)

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 214 – RAE 2008 Bristol Vet)

Browne, W.J. (2006). MCMC algorithms for constrained variance matrices. C*omputational Statistics and Data Analysis.* **50**: 1655-1677. (Cited 32 – 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 62)

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 366 – RAE 2008 Bristol Vet)

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 39)

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 108 – 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 3)

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 10)

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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 8 – REF2014 Bristol Vet)

Browne, W.J., Golalizadeh, 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 44 – REF2014 Bristol Vet)

Green, M.J., Medley, G.F. and Browne, W.J. (2009). Use of Posterior Predictive Assessments to evaluate model fit in multilevel logistic regression. *Veterinary Research.* 40:30 (Cited 15 – REF2014 Nott Vet)

Green, M.J., Browne, W.J., Green, L.E., Bradley, A.J., Leach, K.A., Breen, J.E. and Medley, G.F. (2009). Bayesian Analysis of a Mastitis Control Plan to Investigate the Influence of Veterinary Prior Beliefs on Clinical Interpretation. *Preventive Veterinary Medicine* 91 209-217. (Cited 1)

Kostoulas P., Leontides L., Browne W. J., Gardner I.A (2009). Bayesian estimation of variance partition coefficients adjusted for imperfect test sensitivity and specificity. *Preventive Veterinary Medicine.* 89: 155-162 (Cited 8)

Mullan, S., Browne, W.J., Edwards, S.A., Butterworth, A., Whay, H.R. and Main, D.C.J. (2009). The effect of sampling strategy on the estimated prevalence of welfare outcome measures on finishing pig farms. *Applied Animal Behaviour Science.* 119: 39-48 (Cited 19 – REF2014 Bristol Vet)

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 74 – REF2014 Bristol Vet)

Taylor, S.S., Goodfellow, M.R., Browne, W.J., Walding, B., Murphy, A., Tzannes, S., Gerou-Ferriani, M., Schwartz, A. and Dobson, J.M. (2009). Feline extranodal lymphoma: response to chemotherapy and survival in 110 cats. *Journal of Small Animal Practice.* 50: 584-592 (Cited 40 – REF2014 Cambridge Vet)

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 3 – 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 12)

Browne, W.J., Dryden, I.L., Handley, K., Mian, S. and Schadendorf, D. (2010) Mixed effect modelling of proteomic mass spectrometry data using Gaussian mixtures. *Journal of the Royal Statistical Society, Series C.* 59: 617-633 (Cited 5 – REF 2014 Nott. Maths)

Browne, W.J. and Goldstein, H. (2010). MCMC sampling for a random intercepts model with non-independent residuals within and between cluster units. *Journal of Educational and Behavioural Statistics*. 35: 453-473 (Cited 21 – REF 2014 Bristol Educ.)

Green, M.J., Medley, G.E., Bradley, A.J. and Browne, W.J. (2010) Management Interventions in Dairy Herds: Exploring within Herd Uncertainty using an Integrated Bayesian Model. *Veterinary Research:* 41.22. (Cited 5 – REF 2014 Nott. Vet)

Kilkenny, C., Browne, W.J, Cuthill, I., Emerson, M., and Altman, D. (2010) Improving bioscience research reporting - ARRIVE-ing at a solution. *PLoS Biology* 8(6): e1000412. doi:10.1371/ journal.pbio.1000412 (Cited 1159)

Kilkenny, C., Browne, W.J, Cuthill, I., Emerson, M., and Altman, D. (2010) Animal Research: Reporting In Vivo Experiments: The ARRIVE Guidelines *Journal of Physiology* 588: 2519-2521 (Cited 12)

Kilkenny, C., Browne, W.J, Cuthill, I., Emerson, M., and Altman, D. (2010) Animal Research: Reporting In Vivo Experiments: The ARRIVE Guidelines *British Journal of Pharmacology* 160: 1577-1579 (Cited 934)

Kostoulas P., Nielsen S.S., Browne W.J. and Leontides, L. (2010) A Bayesian Weibull survival model for time to infection data measured with delay. *Preventive Veterinary Medicine.* 94: 191-201 (Cited 6)

Madouasse, A., Huxley, J.N., Browne, W.J., Bradley, A.J. and Green, M.J. (2010) Somatic Cell Count dynamics in a large sample of dairy herds in England and Wales. *Preventive Veterinary Medicine.* 96: 56-64 (Cited 20)

Madouasse, A., Huxley, J.N., Browne, W.J., Bradley, A.J., Dryden, I.L. and Green, M.J. (2010). Use of individual cow milk recording data at the start of lactation to predict the calving to conception interval. *Journal of Dairy Science.* 93: 4677-4690 (Cited 26 – REF2014 Nott Vet)

Madouasse, A., Huxley, J.N., Browne, W.J., Bradley, A.J. and Green, M.J. (2010) Can We Use Milk Recording Data to Predict Reproduction? An Improvement on the Fat to Protein Ratio. *Cattle Practice* 18(2) 83-88 (Cited 2)

Main D.C.J., Barker, Z.E., Leach, K.A., Bell, N.J., Whay, H.R. and Browne, W.J. (2010) Sampling strategies for monitoring lameness in dairy cattle. *Journal of Dairy Science. 93. 1970-1978* (Cited 29 – REF2014 Bristol Vet)

Murray, J.K., Browne W.J., Roberts,M.A., Whitmarsh, A. and Gruffydd-Jones, T.J. (2010) Owned cats and dogs in the UK: who owns them and how many are there in England and Wales? *Vet Record.* 166: 163-168. (Cited 100)

Browne, W.J., Caplan, G., Statham, P. and Nicol, C.J. (2011). Mild environmental aversion is detected by a discrete-choice preference testing method but not by a free-access method. *Applied Animal Behaviour Science* 134 pp152-163 (Cited 5)

Collins, L.M., Asher, L., Pfeiffer, D.U., Browne, W.J., Nicol, C.J. (2011) Clustering and Synchrony in laying hens: The effect of environmental resources on social dynamics. *Applied Animal Behaviour Science*. 129, 43-53. (Cited 21)

Gines, A., Friend, E.J., Vives, M.A., Browne, W.J., Tarlton, J.F. and Chanoit, G. (2011) Mechanical comparison of median sternotomy closure in dogs using polydioxanone and wire sutures. *Journal of Small Animal Practice* 52 pp582-586 (Cited 5)

Kilkenny, C., Browne, W.J, Cuthill, I., Emerson, M., and Altman, D. (2011) Animal Research: Reporting In Vivo Experiments: The ARRIVE Guidelines *Journal of Cerebral blood flow and metabolism* 31: 991-993 (Cited 71)

Masaoud, E., Stryhn, H., Whyte, S. and Browne, W.J., (2011) Statistical Modelling of Neighbour Treatment Effects in Aquaculture Clinical Trials. *Journal of Agricultural, Biological and Environmental Statistics. 16: 202-220* (Cited 2)

Nicol, C.J., Caplen, G., Davies, A., Statham, P. and Browne, W.J. (2011) Decisions about foraging and risk trade-offs in chickens are associated with individual somatic response profile. *Animal Behaviour* 82: 255-262 (Cited 11 – REF2014 Bristol Vet)

Nicol, C.J., Caplen, G., Edgar, J., Richards, G. and Browne, W.J. (2011) Relationships between multiple welfare indicators measured in individual chickens across different time periods and environments. *Animal Welfare* 20, 133-143 (Cited 13)

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Sugiyama, T. Meakin, L.B., Browne, W.J., Galea, G.L., Price, J.S. and Lanyon, L.E. (2012) Bones' adaptive response to mechanical loading is essentially linear between the low strains associated with disuse and the high strains associated with the lamellar/woven bone transition. *Journal of Bone and Mineral Research* 27:1784-1793 (Cited 83 – REF2014 Bristol Vet)

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Heath, C.A.E., Main, D.C.J, Mullan, S. and Browne, W.J. (2016). Sequential sampling: a novel method in farm animal welfare assessment. *Animal.* http://dx.doi.org/10.1017/S1751731114002018 (cited 1)

Michaelides, D.T., Parker, R.M.A., Charlton, C., Browne, W.J. and Moreau, L. (2016) Intermediate Notation for Provenance and Workflow Reproducibility. *In, 6th International Provenance and Annotation Workshop, Springer p83-94.*

Zeale, M.R.K, Bennitt, E., Newson, S.E., Packman, C., Browne, W.J., Harris, S., Jones, G., and Steone, E. (2016) Mitigating the Impact of Bats in Historic Churches: the Response of Natterer's baths Myotis nattereri to Artificial Roosts and Deterrence. *PloS One 11 (1)* (cited 1).

Deakin, A., Browne, W.J., Hodge, J.J.L. Paul, E. S. and Mendl, M. (2016) The Screen-Peck Task for Investigating Cognitive Bias in Laying Hens. *To appear in Plos-One*

Steele, F.A, Washbrook, E., Charlton, C. and Browne W.J. (2016) A longitudinal mixed logit model for estimation of push and pull effects in residential location choice. *To appear in Journal of the American Statistical Association.*

Zhang, Z., Parker, R.M.A., Charlton, C.M.J., Leckie, G. and Browne, W.J. (2016) R2MLwiN: A package to run MLwiN from within R. *To appear in Journal of Statistical Software. (cited 1)*

Bradshaw, J.W.S., Cooke, C.E., Robertson, N.C.E., and Browne, W.J. (2016) Competitive relationships among a colony of castrated male domestic dogs. *Submitted.*

Browne, W.J. and Akkol, S. (2016). MCMC algorithms for structured multivariate normal models. *Submitted.*

Down, P.M., Bradley, A.J., Breen, J.E., Browne, W.J., Kypraios, T. and Green, M.J. (2016) A Bayesian micro-simulation to evaluate the cost-effectiveness of interventions for mastitis control. *Submitted.*

Doyle, R.E., Broster, J.C., Barnes, K., and Browne, W.J. (2016) Temperament, age and weather predict social interaction in the sheep flock. *Submitted.*

Goldstein, H., Leckie, G, Charlton, C. and Browne W.J. (2016) Multilevel models with random effects for the level 1 variance function and individually centered age scales, with application to child growth data. S*ubmitted.*

Goldstein, H., Browne, W.J. and Charlton, C. (2016). A general combined procedure for handling measurement and misclassification errors alongside missing data in multilevel multivariate generalised linear models. *Submitted.*

Higgins,H.M., Browne,W.J., Dryden, I.L., Ferguson,M., Guyott,T.J.M., Wapenaar,W. and Green,M.J. (2016) Do clinicians update their beliefs according to Bayes Theorem? An assessment using probabilistic elicitation. *Submitted.*

Holt,H.R., Collins, L.M., Asher, L., Browne, W.J., Pfeiffer, D.U., Statham, P., Caplen, G. and Nicol, C.J. (2016) Fractal analysis of laying hens' movements: associations with environment and welfare indicators. *Submitted.*

Holt,H.R., Collins, L.M., Asher, L., Browne, W.J., Statham, P., Caplen, G., Pfeiffer, D.U. and Nicol, C.J. (2016) Let's get together: factors associated with hens' tendency to cluster. *Submitted.*

Reyher, K., Lumsdon, C., Browne W.J., and Main, D.C.J (2016). Using an imfrared thermometer for early detection of mastitis in dairy cows. *Submitted.*

Conference Proceedings (since 2005)

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.

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)

Handley, K., Browne, W.J. and Dryden, I.L. (2005). Bayesian Analysis of SELDI-TOF data. *Proceedings in Quantitative Biology, Shape Analysis, and Wavelets, LASR2005*, pp 138-141, University of Leeds.(Cited 3)

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 7)

Research Reports

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.*

Other

Browne, W.J. (1995). Applications of Hierarchical Modelling. *MSc. thesis,* University of Bath. (cited 1 time)

Browne, W.J. (1998). Applying MCMC Methods to Multi-level Models. *PhD. thesis,* University of Bath. (Cited 73)

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).

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. Au*stralian and New Zealand Journal of Statistics*

Recent and Forthcoming Presentations

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

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" 4th Channel Network Conference, International Biometric Society, University of St Andrews.

May 2013 "The Stat-JR software package and it's 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" 4th 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.

Februrary 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 3rd 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)

2014/2015: Teaching 2 courses (with Liz Washbrook) for postgrads in GSOE
2013/2014: Teaching main stats lectures to vets and ABW students along with stats DSE, additional stats lectures to ABW.
: May supervise 3rd year dissertation projects.
2012/2013: Teaching main stats lectures to vets and ABW students along with stats and epidemiology DSE, additional stats lectures to ABW.
: Supervised 3 3rd 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 3rd 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 3rd year dissertation projects.
2009/2010: Teaching additional stats lectures on 2nd year Scientific Methods and Ethics unit, Epidemiology DSE on vet course and statistics lectures on Meat Science MSc.
: Co-Supervising 2 3rd year dissertation project
2008/2009: Teaching additional stats lectures on 2nd year Scientific Methods and Ethics unit
: Supervising 1 3rd year dissertation project
2007/2008: Co-supervising 2 3rd 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 2nd 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 academics as detailed in the list below of the most recent courses I have taught.

Recent and Forthcoming Workshops (Teaching)

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

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

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

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

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

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

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

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

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

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

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

July 2013: Multilevel Modelling. Lowestoft as part of NCSE summer conference

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

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

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

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

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

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

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

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

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

October 2010: 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 MLwiN workshop. Swedish Society for Social Medicine & The Swedish Epidemiological Association, Malmo, Sweden

October 2009: Introductory 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 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 20th-24th 2007: Workshop on "An Introduction to Bayesian Analysis and MCMC methods" for University of Prince Edward Island, Canada (with Henrik Stryhn).

August 7th-18th 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 7th 2005: Workshop on MLwiN & WinBUGS for ESRC Summer School, University of Southampton. (with Nicky Best)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Grants Awarded

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)

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)

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

2013-2017 **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)

Other Academic Commitments

PhD supervision

I currently jointly supervise 9 students, Toni Price (GSOE, Bristol), Chris Draper(Biology, Bristol), Peter Down (Vet. Science, Nottingham), Peers David (Vet. Science, Nottingham), Bobby Glenn Stuijfzand (GSOE, Bristol), Katie Wonham (Vet Science, Bristol), Amanda Deakin (P&P, Bristol), Beatriz Gallo Cordoba (GSOE, Bristol) and Suh Kwon (GSOE, 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 and Helen Higgins who completed her PhD in 2013..
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 am currently an Associate Editor of the Biometrical Journal (2011-)
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 BBSRC, MRC and DEFRA.
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 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 have been a Fellow of the RSS (Royal Statistics Society) since 2000 and was a student fellow for several years.
I am currently on the Education Committee (2014-) 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 and the President Nominating Committee (2013). I am also programme chair for the RSS conference in 2015.
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)

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)

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 an Associate Member of the National Centre for Statistical Ecology.
I was a member of the NC3Rs Reporting Guidelines Working Group.

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 young family however I still try to go jogging when I get the opportunity. In my spare time I have in the past enjoyed swimming, tennis, walking, reading, salsa dancing and listening to music.

Referees

1. Professor Harvey Goldstein
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2. Professor Ian Dryden
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3. Professor David Draper
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