

CURRICULUM VITAE

Murray Aitkin

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Education

B.Sc. Mathematical Statistics 1961 Sydney University
Ph.D. Mathematical Statistics 1966 Sydney University
D.Sc. Mathematical Statistics 1997 Sydney University

Professional Appointments

1996 – 2004 Professor, Department of Statistics, University of Newcastle UK
2000 – 2002 Chief Statistician, Education Statistics Services Institute,
American Institutes for Research, Washington DC
1996 – 2000 Director, Statistical Consultancy Service, University of Newcastle
1994 – 1996 Adjunct Professor, Department of Mathematics,
University of Western Australia
1992 – 1996 ARC Senior Research Fellow, Department of Mathematics,
University of Western Australia
1992 ARC Senior Research Fellow, Centre for Mathematics and its Applications,
Australian National University

- 1989 – 1991 Director, Statistical Laboratory,
Department of Statistics and Operations Research, Tel Aviv University
- 1988 – 1995 Professor, Department of Statistics and Operations Research,
School of Mathematical Sciences, Tel Aviv University
- 1979 – 1987 Professor of Applied Statistics and Director,
Centre for Applied Statistics, University of Lancaster
- 1976 – 1979 SSRC Professorial Fellow in Statistics Applied to the Social Sciences,
Department of Mathematics, University of Lancaster
- 1969 – 1976 Senior Lecturer, School of Behavioural Sciences/
School of Economic and Financial Studies, Macquarie University
- 1967 – 1968 Lecturer, Department of Statistics, University of New South Wales
- 1961 – 1964 Teaching Fellow, Department of Mathematical Statistics,
Sydney University

Membership in Professional Societies

- International Statistical Institute (elected 1982)
- American Statistical Association (Fellow 1984)
- Statistical Society of Australia (President, WA Branch 1995)
- International Biometric Society
- Royal Statistical Society

Editorial Responsibilities

- Editorial Advisory Board, Statistical Modelling: An International Journal
- Former Consulting Editor of Multivariate Behavioral Research
Former Associate Editor of:
 - Journal of the Royal Statistical Society Series B
 - Psychometrika
 - British Journal of Mathematical and Statistical Psychology
 - Journal of Educational Statistics
 - Biometrics

Visiting Appointments

4/2008 –	Honorary Professorial Fellow, Department of Mathematics and Statistics, University of Melbourne
10/2004 – 3/2008	Honorary Professorial Fellow, Department of Psychology, University of Melbourne
7/1991 – 12/1991	Visiting Professor, Department of Statistics, Australian National University
6/1990 – 8/1990	Visiting Professor, Department of Applied Mathematics and Statistics, State University of New York at Stony Brook
7/1989 – 8/1989	Visiting Professor, Department of Biostatistics, School of Public Health, Johns Hopkins University
8/1987 – 7/1988	Visiting Scholar, Division of Statistical and Psychometric Research and Services, Educational Testing Service, Princeton
8/1986 – 7/1987	Visiting Professor, Department of Statistics, School of Mathematical Sciences, Tel Aviv University
7/1971 – 6/1972	Visiting Research Fellow (Fulbright Senior Fellow), Psychometric Research Group, Educational Testing Service, Princeton
1/1966 – 6/1967	Visiting Assistant Professor, Psychometric Laboratory, University of North Carolina at Chapel Hill
7/1964 – 12/1965	Visiting Assistant Professor, Department of Statistics Virginia Polytechnic Institute

Computational Responsibilities

- Chairman, Users' Committee, UK Computer Board 1979-80.
- Chairman, GLIM Working Party of the Royal Statistical Society 1985-86.

Honours and Distinctions

- 1971-2 Fulbright Senior Fellow, Educational Testing Service, Princeton
- 1976-9 Social Science Research Council Professorial Fellow, University of Lancaster
- 1982 Elected member, International Statistical Institute
- 1984 Fellow, American Statistical Association

- 1992-6 Australian Research Council Senior Research Fellow, Australian National University and University of Western Australia
- President, Statistical Society of Australia, Western Australia Branch 1995
- Doctor of Science, Sydney University 1997
- Emeritus Professor, University of Newcastle-upon-Tyne 2004

Invited conference presentations 1999 –

- 10th Anniversary conference, University Centre for Statistics, University of Leuven 29-30 April, 1999.
- Measurement Error and Missing Data conference, Department of Statistics, University of Munich, 12-14 July, 2000.
- Euroworkshop on Statistical Modelling, Munich, 2-5 November, 2000.
- Mixtures conference, University of Edinburgh, 28-30 March, 2001.
- Mixtures conference, Hamburg, 24-28 July, 2001.
- International Workshop on Mixtures, Case Western Reserve University, Cleveland, 2-4 June, 2002.
- Mixtures workshop, Department of Probability and Applied Statistics, University La Sapienza, Rome 10-13 September, 2002.
- Modern Bayesian Methods (session organiser), International Statistical Institute, Sydney April 2005.
- Bayesian Days in the Tropics, Stradbroke Island, Queensland September 2005.
- Modelling the Upper Level in Multi-Level Models (session organiser), Compstat, Rome September 2006.
- Special session on Official Statistics, OBayes6, University La Sapienza, Rome June 2007.
- Keynote speaker, ASEARC (Applied Statistics Education and Research Collaboration) conference, Sydney December 2007.
- Invited short course, International Workshop on Statistical Modelling, Cornell University, July 2009.

Research Grants

UK Economic and Social Research Council

- 1979-1980 £5K. Project grant (joint) for reanalysis of the Teaching Styles data.
- 1979-1985 £136K. Programme grant for the statistical analysis of complex social data.
- 1983-1985 £18K. Project grant (joint) for computing of statistical models in geography.
- 1984-1986 £36K. Project grant (joint) for comparative analyses of social data using British and French approaches.
- 1985-1987 £150K. Project grant with Department of Sociology for user-friendly software for event history analysis, and for advice on general data analysis in the Social Change and Economic Life Initiative.

Statistical Office of the European Economic Community

- 1981-1984 £83K. Contract for the statistical modelling of very large scale survey data.

UK Computer Board

- 1985 £120K. Equipment grant with Mathematics Department for workstations for teaching statistical computing.

Israel Foundation (the Ford Foundation in Israel)

- 1990-1991 US\$43K. Grant (joint) from the Israel Foundation (\$20K) and the Israel Ministry of Education (\$23K) for an indicator system for monitoring science education in elementary schools.

Australian Research Council

- 1992-1996 A\$400K. Senior Research Fellowship for the development of a general likelihood theory of statistical inference.
- 2005-2008 A\$247K. Discovery grant for Theory and applications of Bayesian and likelihood analyses for finite mixture, random effect and multinomial models.

US Office of Education

- 2002-2003 US\$113K. Research sub-contract (with main contractor American Institutes for Research) for the investigation of methods for standard errors in regression models with incomplete data, and for the development of full-information methods for complex models.
- 2003-2008 (annual contracts with Irit Aitkin) US\$1.3M Research sub-contracts (with main contractor American Institutes for Research) for the investigation of efficient model-based computing methods for the National Assessment of Educational Progress (NAEP).

Teaching

Undergraduate – statistics major courses

Introduction to probability and statistics, statistical theory, linear models, generalized linear models, generalized linear mixed models, multivariate analysis, foundations of inference, linear programming.

Undergraduate – service courses

Statistics in the modern world, introduction to statistics for sociologists, introduction to probability and statistics for scientists and social scientists, classical test theory.

Graduate courses

Stochastic processes, psychological test theory, generalized linear mixed models, variance component models, missing data, advanced inference.

Extra-mural short courses

Linear models, generalized linear models, survival analysis, variance component models, statistical computing in GLIM.

Dissertation and thesis supervision

- Merrill Wayne Hume, PhD Virginia Polytechnic Institute 1964-67
- William Coyt Nelson PhD Virginia Polytechnic Institute 1964-67
- Karen Hillix Reinfurt MA University of North Carolina 1966-67
- Nancy Stooksberry Cole PhD University of North Carolina 1966-67
- Ronald James McKay PhD University of New South Wales 1967-70
- Nathalie Raynal PhD University of Toulouse (part-supervision) 1983-5

- Andrew James Scott PhD University of Lancaster 1985-7
- Israel Parmet MSc Tel Aviv University 1989-91
- Tzipora Shochet MSc Tel Aviv University 1989-1991
- Yael Vila PhD Tel Aviv University 1992-1998
- Therese Shaw MSc University of Western Australia 1993-5
- Marco Alfo' PhD University of Chieta (part-supervision) 1997-9
- Robert John Foxall PhD University of Newcastle 1997-2001
- Iain Shaw DEd University of Newcastle (part-supervision) 1998-2000
- Thomas Chadwick PhD University of Newcastle 1998-2002
- Ross Darnell PhD University of Newcastle 1998-2003
- Magreth Njau MPhil University of Newcastle 2002-2004

Postdoctoral supervision

- Dr Roberto Rocci, 1998 – measurement error in generalized linear models
- Dr Tom Chadwick 2002/3 – standard errors with missing data
- Charles Liu 2007/8 – Bayesian methods for model comparison

Publications – Books

Aitkin, M., Anderson, D.A., Francis, B.J. and Hinde, J.P. (1989) *Statistical Modelling in GLIM*. Clarendon Press, Oxford.

Aitkin, M., Francis, B.J. and Hinde, J.P. (2005) *Statistical Modelling in GLIM4*. Clarendon Press, Oxford.

Aitkin, M., Darnell, R.E., Francis, B.J. and Hinde, J.P. (2009) *Statistical Modelling in R*. Clarendon Press, Oxford (to appear).

Aitkin, M. (2009) *Statistical Inference: an Integrated Bayesian/Likelihood Approach*. Chapman and Hall/CRC (in progress).

Publications – Papers

1. **Aitkin, M.** (1964) Correlation in a singly truncated bivariate normal distribution. *Psychometrika* **29**, 263-270.
2. **Aitkin, M.** and M.W. Hume (1965) Correlation in a singly truncated bivariate normal distribution II. Rank correlation. *Biometrika* **52**, 639-643.
3. **Aitkin, M.** and Hume, M.W. (1966) Correlation in a singly truncated bivariate normal distribution III. Correlation between ranks and variate values. *Biometrika* **53**, 278-281.
4. **Aitkin, M.** (1966) The correlation between variate-values and ranks in a doubly truncated normal distribution. *Biometrika* **53**, 281-282.
5. **Aitkin, M.**, Nelson W. C. and Reinfurt, K. H. (1968) Tests for correlation matrices. *Biometrika* **55**, 327-334.
6. **Aitkin, M.** and M. W. Hume (1968) Correlation in a singly truncated bivariate normal distribution IV. Empirical variances of rank correlation coefficients. *Biometrika* **55**, 437-438.
7. **Aitkin, M.** (1969) Some tests for correlation matrices. *Biometrika* **56**, 443-446. (1971) Correction. *Biometrika* **58**, 245.
8. **Aitkin, M.** (1969) Multiple comparisons in psychological experiments. *Brit. J. Math. and Statist. Psych.* **22**, 193-198.
9. **Aitkin, M.** (1971) Statistical theory (behavioral science application). *Ann. Rev. Psych.* **22**, 225-250.
10. **Aitkin, M.** (1972) The ranking of candidates at an examination. in *Mathematics in the Social Sciences in Australia*, Australian Government Publishing Service, Canberra, 541-547.
11. **Aitkin, M.** (1973) Fixed-width confidence intervals in linear regression with applications to the Johnson-Neyman technique. *Brit. J. Math. and Statist. Psych.* **26**, 261-269.
12. **Aitkin, M.** (1974) Simultaneous inference and the choice of variable subsets in multiple regression. *Technometrics* **16**, 221-227.

13. Viney, L., **Aitkin, M.** and Floyd, J. (1974) Self-regard and size of human figure drawings: an interactional analysis. *J. Clin. Psych.* **30**, 581-586 (1974).
14. **Aitkin, M.** (1976) The teaching of statistics for the social sciences. in *Mathematics Needed for Particular Social Sciences*, ed. J. Sutcliffe. Academy of the Social Sciences in Australia, Canberra, 20pp.
15. Singh, S., Westwood, N.H. and **Aitkin, M.**, (1977) Structural analysis of the ridge count data of Australian Europeans using multivariate analysis. *Acta Genet. Med. Gemellol. (Roma)* **26**, 167-171.
16. **Aitkin, M.** (1978) The analysis of unbalanced cross-classifications (with Discussion). *J. Roy. Statist. Soc. A* **141**, 195-223.
17. Whittaker, J. C. and **Aitkin, M.** (1978) A flexible strategy for fitting complex log-linear models. *Biometrics* **34**, 487-495.
18. **Aitkin, M.** (1979) A simultaneous test procedure for contingency table models. *Appl. Statist.* **28**, 233-242.
19. **Aitkin, M.** (1980) A note on the selection of log-linear models. *Biometrics* **36**, 173-178.
20. **Aitkin, M.** and Clayton, D. (1980) The fitting of exponential, Weibull and extreme value distributions to complex censored survival data using GLIM. *Appl. Statist.* **29**, 156-163.
21. **Aitkin, M.** and Wilson, G.T. (1980) Mixture models, outliers and the E-M algorithm. *Technometrics* **22**, 325-331.
22. **Aitkin, M.** (1981) A note on the regression analysis of censored data. *Technometrics* **23**, 161-163.
23. **Aitkin, M.**, Bennett, N. and Hesketh, J. (1981) Teaching styles and pupil progress: a reanalysis. *Brit. J. Educ. Psych.* **51**, 170-186.
24. **Aitkin, M.**, Anderson, D.A. and Hinde, J.P. (1981) Statistical modelling of data on teaching styles (with Discussion). *J. Roy. Statist. Soc. A* **144**, 419-461.
25. Bock, R.D. and **Aitkin, M.** (1981) Marginal maximum likelihood estimation of item parameters: an application of an EM algorithm. *Psychometrika* **46**, 443-459.
26. **Aitkin, M.** (1981) Regression models for repeated measurements. *Biometrics* **37**, 831-832.
27. **Aitkin, M.** and Francis, B.J. (1982) Interactive regression modelling. *Biometrics* **38**, 511-513.
28. **Aitkin, M.** and Flowerdew, R. (1982) A method of fitting the gravity model based on the Poisson distribution. *J. Reg. Sci.* **22**, 191-202.

29. **Aitkin, M.**, Laird, N.M. and Francis, B.J. (1983) A reanalysis of the Stanford Heart Transplant data (with discussion). *J. Amer. Statist. Assoc.* **77**, 264-292.
30. **Aitkin, M.** (1983) Comment on S.J. Prais. [Formal and informal teaching: a further re-consideration of Professor Bennett's statistics.] *J. Roy. Statist. Soc. A* **146**, 170-171.
31. **Aitkin, M.** and Healey, A.R. (1984) Mathematical modelling of the EEC Labour Force Survey. in *Recent Developments in the Analysis of Large-Scale Data Sets*. Office for Official Publications of the European Communities, Luxembourg, 23-50.
32. **Aitkin, M.** (1985) Comment on D. J. Bartholomew. [Foundations of factor analysis: some practical implications.] *Brit. J. Math. Statist. Psych.* **38**, 127-128.
33. **Aitkin, M.** and Healey, A.R. (1985) Statistical modelling of unemployment rates from the EEC Labour Force Survey. *J. Roy. Statist. Soc. A* **148**, 45-56.
34. **Aitkin, M.** and Rubin, D.B. (1985) Estimation and hypothesis testing in finite mixture models. *J. Roy. Statist. Soc. B* **47**, 67-75.
35. **Aitkin, M.** and Anderson, D.A. (1985) Variance component models with binary response: interviewer variability. *J. Roy. Statist. Soc. B* **47**, 203-210.
36. **Aitkin, M.** and Longford, N.T. (1986) Statistical modelling issues in school effectiveness studies (with Discussion). *J. Roy. Statist. Soc. A* **149**, 1-43.
37. **Aitkin, M.** (1986) Statistical modelling: the likelihood approach. *The Statistician* **35**, 103-113.
38. Hinde, J.P. and **Aitkin, M.** (1986) Canonical likelihoods: a new likelihood treatment of nuisance parameters. *Biometrika* **74**, 45-58.
39. **Aitkin, M.** (1987) Modelling variance heterogeneity in normal regression using GLIM. *Appl. Statist.* **36**, 332-339.
40. **Aitkin, M.**, Francis, B. and Raynal N. (1987) Une étude comparative d'analyses des correspondances ou de classifications et des modèles de variables latentes ou de classes latentes. *Rev. Statistique Appliquée* **35**, 53-82.
41. **Aitkin, M.** and Healey, A.R. (1987) Statistical modelling of the EEC Labour Force survey: a project history. in *The Statistical Consultant in Action*, eds. Hand, D.J. and Everitt, B.S. University Press, Cambridge, 171-179.
42. **Aitkin, M.** (1989) Profile predictive likelihood for random effects in the balanced one-way classification. in *Multilevel Analysis of Educational Data*, ed. Bock, R.D. Academic Press, San Diego, 283-296.

43. **Aitkin, M.** and Stasinopoulos, M. (1989) Likelihood analysis of a binomial sample size problem. in *Contributions to Probability and Statistics: Essays in Honor of Ingram Olkin*, eds. Gleser, L.J., Perlman, M. D., Press, S. J. and Sampson, A.R. Springer-Verlag, New York, 399-411.
44. Zuzovsky, R. and **Aitkin, M.** (1990) Using a multi-level model and an indicator system in science education to assess the effect of school treatment on student achievement. *School Effectiveness and School Improvement* **1**, 121-138.
45. **Aitkin, M.** (1991) Posterior Bayes factors (with Discussion). *J. Roy. Statist. Soc. B* **53**, 111-142.
46. Zuzovsky, R. and **Aitkin, M.** (1991) Curricular change and science achievement in Israeli elementary schools. in *Pupils, Classrooms and Schools: International Studies of Schooling from a Multilevel Perspective*, eds. Willms, D. and Raudenbush, S. Academic Press, San Diego, 25-36.
47. **Aitkin, M.** (1992) Model choice in contingency table analysis using the posterior Bayes factor. *Comp. Statist. and Data Anal.* **13**, 245-251.
48. **Aitkin, M.** and Francis, B. (1992) Fitting the multinomial logit model with continuous covariates in GLIM. *Comp. Statist. and Data Anal.* **14**, 89-97.
49. **Aitkin, M.** (1992) Evidence and the posterior Bayes factor. *Math. Scientist.* **17**, 15-25.
50. **Aitkin, M.** (1993) Posterior Bayes factor analysis for an exponential regression model. *Statist. and Computing* **3**, 17-22.
51. **Aitkin, M.** and Fuchs, C. (1993) An analysis of models for the dilution and adulteration of fruit juice. *Statist. and Computing* **3**, 89-99.
52. **Aitkin, M.** and Zuzovsky, R. (1994) Multilevel interaction models and their use in the analysis of large-scale school effectiveness studies. *School Effectiveness and School Improvement* **5**, 45-73.
53. Zuzovsky, R. and **Aitkin, M.** (1994) A coupled process of conceptualizing a model of school effectiveness and developing an indicator system for monitoring effectiveness. *Tijdschrift voor Onderwijs Research* **19**, 65-81.
54. **Aitkin, M.** and Zuzovsky, R. (1994) A response to Raudenbush's comments. *School Effectiveness and School Improvement* **5**, 199-201.
55. **Aitkin, M.** and Aitkin, I. (1994) Review of SuperANOVA. *Appl. Statist.* **43**, 422-427.
56. **Aitkin, M.** (1995) Comment on J. A. Nelder. [The statistics of linear models: back to basics.] *Statist. and Computing* **5**, 85-86.
57. **Aitkin, M.** (1995) Probability model choice in single samples from exponential families using Poisson log-linear modelling, and model comparison using Bayes and posterior Bayes factors. *Statist. and Computing* **5**, 113-120.

58. **Aitkin, M.** and Francis, B. (1995) Fitting overdispersed generalized linear models by nonparametric maximum likelihood. *The GLIM Newsletter* **25**, 37-45.
59. **Aitkin, M.**, Finch, S., Mendell, N. and Thode, H. (1996) A new test for the presence of a normal mixture distribution based on the posterior Bayes factor. *Statist. and Computing* **6**, 121-125.
60. **Aitkin, M.** and Aitkin, I. (1996) A hybrid EM/Gauss-Newton algorithm for maximum likelihood in mixture distributions. *Statist. and Computing* **6**, 127-130.
61. **Aitkin, M.** (1996) A general maximum likelihood analysis of overdispersion in generalized linear models. *Statist. and Computing* **6**, 251-262.
62. **Aitkin, M.** (1996) A short history of a Vietnam War attitude survey. *Stats* **17**, 1-9.
63. **Aitkin, M.** (1996) Comment on I.S. Helland. [Simple counterexamples against the conditionality principle.] *Amer. Statist.* **50**, 384-385.
64. **Aitkin, M.** (1997) The calibration of P-values, posterior Bayes factors and the AIC from the posterior distribution of the likelihood (with Discussion). *Statist. and Computing* **7**, 253-272.
65. **Aitkin, M.** (1998) Simpson's paradox and the Bayes factor. *J. Roy. Statist. Soc B* **60**, 269-270.
66. **Aitkin, M.** and Alfo', M. (1998) Regression models for binary longitudinal responses. *Statist. and Computing* **8**, 289-307.
67. **Aitkin, M.** (1998) Profile likelihood. in *Encyclopedia of Biostatistics*. John Wiley, New York.
68. **Aitkin, M.** (1999) A general maximum likelihood analysis of variance components in generalized linear models. *Biometrics* **55**, 117-128.
69. O'Sullivan, J.J., Derrick, G., Griggs, P., Foxall, R., **Aitkin, M.** and Wren, C. (1999) Ambulatory blood pressure in children. *Archives of Disease in Childhood* **80**, 529-532.
70. **Aitkin, M.** (1999) Meta-analysis by random-effect modelling in generalized linear models. *Statist. in Med.* **18**, 2343-2351.
71. Parker, L., Pearce, M.S., Dickinson, H.O., **Aitkin, M.** and Craft, A.W. (1999) Stillbirths among the offspring of male radiation workers at the Sellafield nuclear reprocessing plant. *The Lancet* **354**, 1407-1414.
72. Welfare, M.R., **Aitkin, M.**, Bassendine, M.F. and Daly, A.K. (1999) Detailed modelling of caffeine metabolism and examination of the *CYP1A2* gene: lack of a polymorphism in *CYP1A2* in Caucasians. *Pharmacogenetics* **9**, 367-375.

73. Charlton M.E., Brunson C., **Aitkin M.** and Fotheringham A.S. (1999) A comparison of random coefficient modelling and geographically weighted regression for spatially non-stationary regression problems. *Geographical and Environmental Modelling* **3** 47-62.
74. Zuzovsky, R. and **Aitkin, M.** (2000) Multilevel longitudinal analysis of IEA studies on science achievement using SISS and TIMSS data. *Internat. J. of Ed. Policy, Res. and Practice* **1**, 243-259.
75. Alfo', M. and **Aitkin, M.** (2000) Random coefficient models for binary longitudinal responses with attrition. *Statist. and Computing* **10**, 275-283.
76. **Aitkin, M.** (2001) Likelihood and Bayesian analysis of mixtures. *Statistical Modelling* **1**, 287-304.
77. **Aitkin, M.** and Rocci, R. (2002) A general maximum likelihood analysis of measurement error in generalized linear models. *Statist. and Computing* **12**, 163-174.
78. Pearce, M.S., Dickinson, H.O., **Aitkin, M.** and Parker, L. (2002) Stillbirths among the offspring of male radiation workers at the Sellafield nuclear reprocessing plant: detailed results and statistical aspects. *J. Roy. Statist. Soc A* **165**, 523-548.
79. Shaw, I., Newton, D.P., **Aitkin, M.** and Darnell, R. (2003) Do OFSTED inspections of secondary schools make a difference to GCSE results? *Brit. Educ. Res. J.* **29**, 63-75.
80. **Aitkin, M.** and Foxall, R. (2003) Statistical modelling of artificial neural networks using the multi-layer perceptron. *Statist. and Computing* **13**, 227-239.
81. **Aitkin, M.** and Alfo', M. (2003) Longitudinal analysis of repeated binary data using autoregressive and random effect modelling. *Statistical Modelling* **3**, 291-303.
82. **Aitkin, M.** and Aitkin, I. (2005) Bayesian inference for factor scores. in *Contemporary Psychometrics. A Festschrift to Roderick P. McDonald*, eds. Maydeu-Olivares, A. and McArdle, J.J. Lawrence Erlbaum Associates, Mahwah, NJ, pp. 207-222.
83. **Aitkin, M.**, Boys, R.J. and Chadwick, T. (2005) Bayesian point null hypothesis testing via the posterior likelihood ratio. *Statist. and Computing*, **15**, 217-230.
84. Alfo', M. and **Aitkin, M.** (2006) Variance component models for longitudinal count data with baseline information: epilepsy data revisited. *Statist. and Computing* **16**, 231-238.
85. **Aitkin, M.** (2008) Bayesian bootstrap analysis of regression in finite population survey data with stratification and clustering. *J. Official Statistics* **24**, 21-51.

86. Liu, C.C. and **Aitkin, M.** (2008) Bayes factors: prior sensitivity and model generalizability. *J. Math. Psych* **52**, 362-375.
87. **Aitkin, M.**, Liu, C.C and Chadwick, T. (2009) Bayesian model comparison and model averaging for small-area estimation. *Annals of Applied Statist.* (to appear).

Book Reviews

- (1967) *Elementary Statistical Theory for Behaviour Scientists*, J.W. Cotton. *Austral. J. Statist.* **9**, 85-86.
- (1967) *Models, Methods and Analytical Procedures in Education Research*, J.E. Hill and A. Kerber. *Austral. J. Statist.* **9**, 86-87.
- (1969) *Tables of the Incomplete Beta-Function*, K. Pearson (Ed.). *Austral. J. Statist.* **11**, 101.
- (1970) *Statistical Methods in the Social Sciences*, D.D. Bugg, M.A. Henderson, K. Holden and P.J. Lund. *Austral. J. Statist.* **12**, 70.
- (1971) *Elements of Continuous Multivariate Analysis*, A.P. Dempster. *Austral. J. Statist.* **13**, 47-49.
- (1971) *Statistics: the Essentials for Research*, H.E. Klugh. *Austral. J. Statist.* **13**, 54-55.
- (1971) *Selected Quantitative Techniques and Attitude Measurement*, F. Mosteller, R.R. Bush and B.F. Green. *Austral. J. Statist.* **13**, 55.
- (1976) *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, P. Cohen and J. Cohen. *Austral. J. Statist.* **18**, 94-97.
- (1979) Dealing with survey data. A critical review of *The Analysis of Survey Data*, eds C. O'Muircheartaigh and C. Payne). *Brit. J. Educ. Psych.* **49**, 198-205.
- (1980) *Analyzing Qualitative/Categorical Data: Log-Linear Models and Latent Structure Analysis*, L.A. Goodman. *Appl. Statist.* **29**, 101-102.
- (1981) *The Design and Analysis of Longitudinal Studies: Their Role in the Measurement of Change*, H. Goldstein. *Brit. J. Math. and Statist. Psych.* **134**, 129.
- (1981) *The Statistical Analysis of Failure Time Data*, J.D. Kalbfleisch and R.L. Prentice. *Biometrics* **37**, 622-624.
- (1982) *Analysis of Categorical Data: Dual Scaling and its Applications*, S. Nishisato. *J. Roy. Statist. Soc. A* **145**, 513-516.
- (1984) *Linear Statistical Analysis of Discrete Data*, M. Aickin. *Biometrics* **40**, 1210-1211.
- (1987) *The Analysis of Cross-Classified Data Having Ordered Categories*, L.A. Goodman. *Psychometrika* **52**, 302-303.
- (2000) *Computer-Assisted Analysis of Mixtures and Applications: Meta-Analysis, Disease Mapping and Others*, D. Böhning. *Biometrics* **56**, 651-652.
- (2000) *Statistics and Neural Networks: Advances at the Interface*, eds. J.W. Kay and D.M. Titterton. *The Statistician* **49**, 627-628.

(2009) *Linear and Generalized Linear Mixed Models and Their Applications*, J. Jiang. *J. Amer. Statist. Assoc.* (to appear).

Royal Statistical Society Discussion contributions

- Nelder, J.A. (1977) A reformulation of linear models. *A*, 66-67.
- Goldstein, H. (1979) Some models for analysing longitudinal data on educational attainment. *A*, 432-433.
- McCullagh, P. (1980) Regression models for ordinal data. *B*, 131.
- Bartholomew, D. (1980) Factor analysis for categorical data. *B*, 312-314.
- Titterton, D.M. et al (1981) Comparison of discrimination techniques applied to a complex data set of head injured patients. *A*, 167.
- Atkinson, A.C. (1982) Regression diagnostics, transformations and constructed variables. *B*, 26.
- Pocock, S.J., Cook, D.G. and Shaper, A.G. (1982) Analysing geographic variation in cardiovascular mortality: methods and results. *A*, 337-338.
- Derbyshire, M.E. (1983) The application of statistical methods in personal social services: a review. *A*, 140.
- Deville, J.-C. and Malinvaud, E. (1983) Data analysis in official socio-economic statistics. *A*, 356-357.
- Copas, J.B. (1983) Regression, prediction and shrinkage. *B*, 342-343.
- Green, P.J. (1984) Iteratively reweighted least squares for maximum likelihood estimation, and some robust and resistant alternatives. *B*, 173.
- Miller, A.J. (1984) Selection of subsets of regression variables. *A*, 413-414.
- (with J. P. Hinde) Yates, F. (1984) Tests of significance for 2 x 2 contingency tables. *A*, 453-454.
- Clayton, D. and Cuzick, J. (1985) Multivariate generalizations of the proportional hazards model. *A*, 110-111.
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