

VITA: ADRIAN E. RAFTERY

May 28, 2019

Born: July 22, 1955; Dublin, Ireland

Citizenship: Citizen of the U.S. and of Ireland

Current Position: Boeing International Professor of Statistics and Sociology
University of Washington

Coordinates: Department of Statistics
University of Washington
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Education:

B.A. (Mod.) (1st Class)	1976	Trinity College, Dublin
M.Sc.	1977	Trinity College, Dublin
Diplôme d'Etudes Approfondies	1978	Université de Paris VI
Associate of the Institute of Actuaries	1979	Institute of Actuaries, London
Docteur de troisième cycle	1980	Université de Paris VI. Advisor: Paul Deheuvels.

Positions:

1990-present: Professor of Statistics and Sociology, University of Washington

1999-2009: Founding Director, Center for Statistics and the Social Sciences, University of Washington

1986-90: Associate Professor of Statistics and Sociology, University of Washington

1980-86: Lecturer in Statistics, Trinity College, Dublin.

1971-72: Actuarial trainee, Duncan C. Fraser & Co., Dublin

1992-93: Visiting Professor of Statistics, Université de Paris VI and INRIA, France

2006-07: Visiting Researcher, Institute of Information Theory and Automation, Prague

2013-14: E.T.S. Walton Fellow, University College Dublin

2017-18: Fellow, Center for Advanced Study in the Behavioral Sciences at Stanford University

HONORS

Boeing International Professorship, University of Washington, 2018-.

Member of the United States National Academy of Sciences, elected 2009.

Fellow of the American Academy of Arts and Sciences, elected 2003

Member of Washington State Academy of Sciences, elected 2009

Honorary Member, Royal Irish Academy, elected 2013

Fellow of the American Statistical Association, elected 1994

Fellow of the Institute of Mathematical Statistics, elected 2007.

Elected member of the International Statistical Institute, elected 2014.

Most cited researcher in mathematics in the world, 1995-2005 (Thomson-ISI, 2005).

Blumstein-Jordan endowed professorship, University of Washington, 2005-2010

Science Foundation Ireland St. Patrick's Day Medal, 2017

Inaugural W.S. Gossett Lecturer, Royal Irish Academy, 2014

Emmanuel and Carol Parzen Prize for Statistical Innovation, 2013
American Statistical Association 2011 Award for Outstanding Statistical Application
American Statistical Association 2011 Statistics in Chemistry Award
American Society for Quality 2011 Wilcoxon Award

Buehler-Martin Lecturer, University of Minnesota, 2011
Journal of Computational and Graphical Statistics Highlight of 2010
Technometrics Randy Sitter Paper, 2010
Jerome Sacks Award for Cross-Disciplinary Research, National Institute for Statistical Sciences, 2006.
Medaillon Lecturer, Institute of Mathematical Statistics, 2005

The 2004 *Journal of the American Statistical Association - Applications* Invited Discussion Paper, 2004
Lazarsfeld Award for Distinguished Contribution to Knowledge, American Sociological Association, 2003
Highly Cited Author, Institute for Scientific Information, 2002–
Member of the Sociological Research Association, elected 2001
Clifford C. Clogg Memorial Lecturer, Penn State University, 1999

H.O. Hartley Memorial Lecturer, Texas A&M University, 1999
Psychometric Society and Classification Society of North America, Invited Keynote Speaker, 1998
Population Association of America Clifford C. Clogg Award for population statistics, 1998
Institute of Mathematical Statistics Special Invited Lecturer, 1997
American Statistical Association Award for Outstanding Statistical Application, 1996
The 1995 *Journal of the American Statistical Association - Applications*, Invited Discussion Paper
Fellow of Trinity College Dublin, elected 1986

INVITED PRESENTATIONS (since 2014)

MCMski Conference, Chamonix, France, January 2014
Plenary Lecture, MRC Biostatistics Centenary Conference, University of Cambridge, March 2014.
Population Association of America Annual Meeting, Boston, April 2014.
Conference on Applied Statistics in Ireland, Belfast, May 2014.
Max Planck Institute for Demographic Research, Rostock, Germany, June 2014.

Keynote lecture, Journées de Statistique, Rennes, France, June 2014.
Opening Lecture, Workshop on Use of Probabilistic Forecasts, Royal Statistical Society, London, June 2014.
Invited presentation, Joint Statistical Meetings, Boston, August 2014.
Columbia University, Department of Statistics, October 2014.

United Nations Population Division, October 2014.
New York University, Department of Sociology, October 2014.
Stanford University, Seminar on Data and Society, November 2014.
University of California, Santa Barbara, Leonard Broom Demography Seminar, November 2014.
One-week course on Probabilistic Population Projections, Max Planck Institute for Demographic Research, Rostock, Germany, November 2014.

Duke University, Department of Statistical Science, December 2014.
Duke University, Population Research Institute, December 2014.
University of Chicago, Department of Statistics, April 2015.
University of California, Santa Cruz, Department of Applied Mathematics and Statistics, April 2015.

Keynote speaker, New England Statistics Symposium, University of Connecticut, April 2015.
Population Association of America Annual Meeting, San Diego, May 2015.
Keynote speaker, International Symposium on Mathematical Methods in Systems Biology, University College Dublin, June 2015.

Invited speaker, Joint Statistical Meetings, Seattle, August 2015.
Invited speaker, United Nations Expert Group Meeting on Strengthening the Demographic Evidence Base for the Post-2015 Development Agenda, New York, October 2015.

International Methods Colloquium, October 2015 (NSF-sponsored Webinar organized by Rice University)
Oregon State University, Department of Statistics, November 2015.
University of California Irvine, Department of Statistics, February 2016.
University of California Irvine, Department of Sociology, February 2016.
International Biometric Society Eastern North American Region (ENAR) Webinar, February 2016.

Population Association of America Annual Meeting, Washington DC, April 2016.
Princeton University, Office of Population Research, April 2016.
United Nations Population Division, New York, April 2016.
Invited speaker, International Society for Bayesian Analysis World Meeting, Sardinia, June 2016.
Keynote speaker, International Symposium on Forecasting, Santander, Spain, June 2016.
Keynote speaker, International Workshop on Statistical Modelling, Rennes, France, July 2016.
Invited speaker, Annual Meeting of the Working Group on Model-Based Clustering, Paris, France, July 2016.
Invited speaker, Workshop on Social Network Analysis, Isaac Newton Institute, Cambridge, U.K., July 2016.
Otis Dudley Duncan Lecture (one full session), American Sociological Association Annual Meeting, Seattle, August 2016.

Keynote speaker, Science Foundation Ireland Meeting, Washington, D.C., March 2017.
Population Association of America Annual Meeting, Chicago, April 2017.
Invited speaker, Joint Statistical Meetings, Baltimore, August 2017.
Stanford University, Center for Advanced Study in the Behavioral Sciences, September 2017.
Stanford University, Department of Statistics, October 2017.

International Population Conference, Cape Town, November 2017.
Keynote speaker, Science Summit, Science Foundation Ireland, Dublin, November 2017.
Population Association of America Annual Meeting, Denver, April 2018
Stanford University, Department of Biostatistics, May 2018
NBER-NSF SBIES Conference, Stanford, May 2018.

Working Group on Model-Based Clustering, Ann Arbor, Michigan, July 2018.
Joint Statistical Meetings, Vancouver, BC, August 2018.
University of Washington, Program on Climate Change Summer Institute, Friday Harbor, Wash., September 2018.
Johns Hopkins University, Departments of Sociology, and Applied Mathematics and Statistics, October 2018.
Johns Hopkins University, Department of Biostatistics and Hopkins Population Center, October 2018.

University of Iowa, Department of Biostatistics, October 2018.
Duke University, Machine Learning Seminar, October 2018.
Harvard University, Center for Population and Development Studies, October 2018.
University of Virginia, Department of Statistics and Quantitative Collaborative, October 2018.
UCLA, Department of Statistics, November 2018.
UCLA, California Population Center, November 2018.
UC San Diego, Division of Biostatistics and Bioinformatics, December 2018.

PROFESSIONAL SERVICE

Professional Associations

Chair, Fisher Lecture Committee, Institute of Mathematical Statistics, 1995-6 (member 1993-6).
Scientific Committee, International Whaling Commission, 1988-1998

Scientific Committee, Working Group on Model-Based Clustering, 1994–present
Publications Committee, American Sociological Association, 1995-1997

Board of Directors, American Statistical Association, 1998-1999
Publications Committee, American Statistical Association, 1998-2000
Founders Award Committee, American Statistical Association, 1998-1999
Clogg Award Committee, Population Association of America, 1999-2004

Chair, JASA Editor Search Committee, American Statistical Association, 2003
National Research Council Committee on the Modernization of the National Weather Service, 2010–2012.
National Advisory Committee, Statistical and Applied Mathematical Sciences Institute (SAMSI), 2012–2015.
Scientific Advisory Committee, STATMOS: Research Network for Statistical Methods for Atmospheric and Oceanic Sciences
National Academy of Sciences Committee on Applied and Theoretical Statistics (CATS), 2014–2017.
Cozzarelli Prize Committee, National Academy of Sciences, 2016–.
Central Membership Committee, National Academy of Sciences, 2018–.

Editorial Service

Editorial Board, *Proceedings of the National Academy of Sciences*, 2013–present.
Editorial Board, *Demography*, 2014-present.
Deputy Editor, *Demography*, 2010-2013.
Guest Editor, *Statistical Methodology* Special Issue on Statistical Methods for the Social Sciences, 2010
Coordinating Editor and Applications and Case Studies Editor, *Journal of the American Statistical Association*, 1998-2000.
Editor, *Sociological Methodology*, 1994-1997.
Guest Editor, *Sociological Methods and Research*, Special issue on Causality in the Social Sciences in honor of Herbert L. Costner, 1997-8.

Associate Editor, *Journal of the Royal Statistical Society, Series B*, 1988-1991.
Associate Editor, *Journal of the American Statistical Association*, 1989-1991.
Advisory Editor, *Sociological Methodology*, 1992-4.
Associate Editor, *Structural Equation Models*, 1993-2003.
Associate Editor, *Journal de la Société Française de Statistique*, 1999-2005.

Reviewer for most major statistics, sociology, demography and meteorology journals, and for several other journals in a variety of fields, for most major US Federal granting agencies, and for several book publishing companies.

Membership of Professional Associations

American Statistical Association, Life Member
Institute of Mathematical Statistics, Life Member
American Sociological Association
Population Association of America
International Statistical Association
Irish Statistical Association

GRANTS AND CONTRACTS

Principal Investigator, National Science Foundation Grant, “Microdynamics of Industrialization in Ireland”, 1986-1988 [\$33,942].
Co-investigator, Office of Naval Research Contract, “Robust Statistical Methods for Time Series”, 1986-1988 [\$199,021] (P.I.: R.D. Martin).

Co-investigator, Applied Physics Laboratory/Office of Naval Research Contract, “Time Series Analysis”, 1986-1987 [\$37,780] (P.I.: D.B. Percival).

Co-investigator, North Slope Borough Research Contract, “Combining acoustic and visual data to obtain population size estimates for the bowhead whale, *Balaena mysticetus*,” 1986-1987 [\$49,588] (P.I.: J.E. Zeh).

Co-Investigator, Applied Physics Laboratory/Office of Naval Research Contract, “Time Series Analysis and Modern Computing Environments”, 1987-1988 [\$33,627] (P.I.: D.B. Percival).

Principal Investigator, North Slope Borough Research Contract, “Population Size Estimation for the Bowhead Whales, *Balaena mysticetus*, Using Bayes Empirical Bayes and Mark-Recapture Approaches”, 1987-1988 [\$60,108] (with J.E. Zeh).

Co-investigator, Applied Physics Laboratory/Office of Naval Research Contract, “Time Series Analysis and Modern Computing Environments”, 1988-89 [\$35,800] (P.I.: D.B. Percival).

Principal Investigator, Office of Naval Research Contract, “Robust and Non-parametric Time Series, and Problems in Spatial Statistics”, 1988-1990 [\$360,628] (with R.D. Martin).

Principal Researcher, U.S. West, “Improving speech recognition with modern signal processing and statistical modeling methods”, 1988-1989 [\$100,994] (with R.D. Martin and L.E. Atlas).

Principal Investigator, North Slope Borough Research Contract, “Population size and trend estimation for the bowhead whale, *Balaena mysticetus*, 1988-89 [\$65,406] (with J.E. Zeh).

Principal Investigator, North Slope Borough Research Contract, “1988 Population Size and Trend Estimation for the Bowhead Whale, *Balaena mysticetus*”, 1989-90 [\$78,550] (with J.E. Zeh).

Principal Investigator, Office of Naval Research Contract, “Time series and image analysis”, 1990-93 [\$601,326] (with R.D. Martin).

Co-Investigator, NICHD, grant, “A Socioeconomic Analysis of Fertility in Iran”, 1990-92 [\$338,627] (P.I.: C. Hirschman).

Principal Investigator, North Slope Borough Research Contract, “Assessment of Population Size and Trend of the Bowhead Whale, *Balaena mysticetus*”, 1990-91 [\$85,774] (with J.E. Zeh).

Principal Investigator, North Slope Borough Research Contract, “Population Assessment Models for the Bowhead Whale, *Balaena mysticetus*,” 1991-92 [\$109,892] (with J.E. Zeh).

Principal Investigator, Office of Naval Research Contract, “Inference for marked space-time point processes: Model-based clustering, posterior simulation, and robust methods”, 1993-1996 [\$599,976] (with R.D. Martin).

Principal Investigator, National Science Foundation Grant, “Computing environments for graphical models”, 1992-1994 [\$45,000] (with D. Madigan).

Principal Investigator, North Slope Borough Research Contract, “Preparation for 1994 bowhead whale assessment”, 1993-1994 [\$120,315] (with J.E. Zeh).

Co-Investigator, NICHD grant, “A Socioeconomic analysis of fertility in Iran”, 1992-1994 [\$298,000] (P.I.: C. Hirschman).

Principal Investigator, North Slope Borough Research Contract, “Bowhead whale assessment”, 1994-1995 [\$100,000]

Principal Investigator, Office of Naval Research Grant. “Model-Based Clustering for Marked Spatial Point Processes”, 1995-2001. [about \$1,000,000]

Principal Investigator, Office of Naval Research Grant. “Unsupervised Feature Detection in Images Using Model-Based Clustering”, 1995-1997 [\$118,587].

Principal Investigator, North Slope Borough Research Contract, “Prepare papers on assessment of bowhead whales for 1996”, 1995-1996 [\$64,147].

Principal Investigator, Office of Naval Research Augmentation Award for Science and Engineering Research Training, 1997-2000. [\$201,668].

Principal Investigator, North Slope Borough Research Contract, “Further efforts to finalize the Bayesian synthesis assessment for bowhead whales”, 1996-1997. [\$64,469].

Co-Principal Investigator, National Center for Research on Statistics and the Environment Grant, “Application of Bayesian and non-Bayesian methods to development and assessment of environmental fate and transport and toxiodynamic models” (with Alison Cullen and Elaine Faustman), 1997-1999. [\$338,919.]

Co-Investigator, Environmental Protection Agency Grant, “National Center for Research on Statistics and the Environment”, 1996-2001. [\$5.0 million] (P.I.: P. Guttorp).

Principal Investigator, North Slope Borough Contract. “Comprehensive Assessment of Bowhead Whales,” 1998-9. [\$65,000]

Principal Investigator and Director, University of Washington University Initiatives Fund, “Center for Statistics and the Social Sciences,” 1999-2003. [\$3.45 million direct costs]

Principal Investigator, Center for Statistics and the Social Sciences, University of Washington. “Demand, Diffusion or Ideation? Explaining Fertility Decline,” 2000-2001. [\$14,416 direct costs]

Co-Principal Investigator, National Research Center on Statistics and the Environment. “Application of Bayesian Methods to Development and Assessment of Environmental Risk Assessment Models,” 1999-2000. (with Alison Cullen). [\$48,330 direct costs].

Principal Investigator, Multidisciplinary University Research Initiative (MURI) Award, Department of Defense. “Integration and Visualization of Multisource Information for Mesoscale Meteorology: Statistical and Cognitive Approaches to Visualizing Uncertainty,” 2001-2008. [\$5.15 million]

Principal Investigator, NIH R01 grant. “Model-based Clustering Methods for Medical Image Segmentation and Gene Expression Data,” 2001-2006. [\$810,000]

Co-Principal Investigator, NSF grant. “Modeling Uncertainty in Land Use and Transportation Policy Impacts: Statistical Methods, Computational Algorithms, and Stakeholder Interaction,” 2006–2008 (P.I.: Alan Born- ing). [\$750,000].

Principal Investigator, NICHD R01 grant. “Assessing Uncertainty in Population Projection Models via Bayesian Melding.” 2007–2012. [\$1.56 million]

Co-Principal Investigator, NSF grant. “A Multi-disciplinary Approach to Communicating Weather Forecast Uncertainty.” 2007–2010. (P.I.: Susan Joslyn).

Co-investigator, NIH R01 grant. “Prediction and Network Construction Using High-throughput Data.” 2008–2013. (PI Ka Yee Yeung.) [\$2.85 million]

Co-investigator, NSF grant, under subcontract from the University Corporation for Atmospheric Research (UCAR). “Joint Ensemble Forecasting System.” 2008–2010. (P.I.: Clifford Mass).

Principal Investigator, NICHD R01 grant. “Bayesian Estimation of Prevalence and At-Risk Group Size in Sexually Transmitted Infection Epidemics,” 2012–2018. [\$1.85 million].

Principal Investigator, NICHD R01 grant. “Probabilistic Population Projections for All Countries,” 2012–2017. [\$1.53 million].

E.T.S. Walton Visitor Grant, Science Foundation Ireland, 2013–2014. [\$288,000.]

Co-investigator, NIH U54 grant, UW sub-project. (Principal Investigator: Ka Yee Yeung). “DCIC FOR LINCSD2Km” 2014–2016. [\$458,000]

Co-Principal Investigator, National Oceanographic and Atmospheric Administration grant, “Advancing understanding of sea ice predictability with sea ice data assimilation in a fully-coupled model with improved region-scale metrics,” 2015–2020 (PI: Cecilia Bitz). [\$741,000.]

Principal Investigator, NICHD R01 grant, “Statistical Methods for Population Projections,” 2017–2022. [\$1.85M]

TEACHING

Courses taught

Hierarchical Modeling for the Social Sciences
 Applied Regression
 Log-linear Modeling and Logistic Regression for the Social Sciences
 Event History Analysis
 Math Review for Social Scientists
 Social Mobility
 Statistical Demography

Stochastic Processes
Time Series Analysis
Forecasting for Management Science
Bayesian Statistics
Advanced Applied Statistics (for Statistics Ph.D. students)

Introduction to Statistics for Engineering
Introduction to Statistics for Computer Science
Mathematical Statistics
Mathematical Statistics for Economics
Statistical Inference for Deterministic Simulation Models
Model-Based Clustering

Graduate Seminars Organized

Advanced Bayesian Statistics
Recursive Updating Time Series methods
Non-Gaussian Time Series
Model-Based Clustering and Bayesian Model Selection
Current Advances in Sociological Methodology
Causality in the Social Sciences

Student supervision

(29 Ph.D. students supervised, of whom 21 hold or have held tenure-track faculty positions; 6 M.S. students supervised.)

- Elaine Stephen, "Forecasting Spore Concentrations", M.Sc. thesis, Trinity College Dublin, 1982. [Senior Corporate Responsibility Consultant, Business in the Community, Dublin, Ireland.]
- Volkan E. Akman, "Some aspects of the statistical analysis of stochastic point processes", Ph.D. dissertation, Trinity College Dublin, 1985. [Corporate Compensation Specialist, Ministry of Government Services, Ontario, Canada.]
- Aisling Monahan, "Management Production Reporting System", Senior Honor Thesis, Trinity College Dublin, 1985 (Winner of the Cooper and Lybrands Prize). [Director, Inside Inspiration, Sydney, Australia.]
- Gary K. Grunwald, "Time Series Models for Continuous Proportions", Ph.D. dissertation, University of Washington, 1987 [jointly directed with P. Guttorp]. [Professor of Preventive Medicine and Biometrics, University of Colorado Denver].
- Philip Turet, "Population size estimation for the Western Arctic stock of bowhead whale: A Bayes empirical Bayes approach", M.S. thesis, University of Washington, 1987 (jointly directed with J.E. Zeh). [Owner, medicalsoundproofingsolutions, Norfolk, VA.]
- Jeffrey D. Banfield, "Constrained cluster analysis and image understanding", Ph.D. dissertation, University of Washington, 1988. [Associate Professor of Statistics (retired), Montana State University.]
- Peter S. Craig, "Time series of angles", Ph.D. dissertation, Trinity College Dublin, 1989. [Associate Professor of Statistics, University of Durham, U.K.]
- Michael J. Kahn, "Bayes empirical Bayes beta-binomial modeling with covariates, applied to health care policy", Ph.D. dissertation, University of Washington, 1990. [Professor and Chair of Mathematics, Wheaton College]
- Nhu D. Le, "Problems in time series analysis", Ph.D. dissertation, University of Washington, 1990. [jointly directed with R.D. Martin]. [Senior Scientist, British Columbia Cancer Agency.]
- Ross Taplin, "The analysis of agricultural field trials", Ph.D. dissertation, University of Washington, 1990. [Professor, Curtin University, Perth, Australia.]
- Michael A. Newton, "The weighted likelihood bootstrap and a method for prepivoting", Ph.D. dissertation, University of Washington, 1991. [Professor of Statistics and Biostatistics, University of Wisconsin, Madison; winner of the COPSS Award.]

- Susan L. Rosenkranz, "The Bayes factor for model evaluation in a hierarchical Poisson model for area counts", Ph.D. dissertation, University of Washington, 1992. [Visiting Scientist, Harvard School of Public Health.]
- Geof H. Givens, "A Bayesian framework and importance sampling methods for synthesizing multiple sources of evidence and uncertainty linked by a complex mechanistic model." Ph.D. dissertation, University of Washington, 1993. [Associate Professor Emeritus of Statistics, Colorado State University; Director, Givens Statistical Solutions.]
- Steven M. Lewis, "Multilevel modeling of discrete event history data using Markov chain Monte Carlo methods." Ph.D. dissertation, University of Washington, 1994. [Research Scientist (retired), Department of Statistics, University of Washington.]
- Jennifer A. Hoeting, "Accounting for model uncertainty in linear regression." Ph.D. dissertation, University of Washington, 1995 (Jointly advised with David Madigan). [Professor of Statistics, Colorado State University.]
- Chris T. Volinsky, "Bayesian model averaging for censored survival models." Ph.D. dissertation, University of Washington, 1997. (Jointly advised with David Madigan). [Assistant Vice President, AT&T Labs - Research.]
- Derek C. Stanford, "Fast automatic unsupervised image segmentation and curve detection in spatial point patterns." Ph.D. dissertation, University of Washington, 1999. [State Representative, Washington State House of Representatives.]
- David J. Poole, "Bayesian inference for noninvertible deterministic simulation models, with application to bowhead whale assessment." Ph.D. dissertation, University of Washington, 1999. [Statistician, AT&T Labs - Research]
- Gregory R. Warnes, "The normal kernel coupler: An adaptive Markov chain Monte Carlo method for efficiently sampling from multi-modal distributions." Ph.D. dissertation, University of Washington, 2000. [Senior Principal Biostatistician, Boehringer Ingelheim, Danbury, CT; formerly Associate Professor of Biostatistics and Computational Biology, University of Rochester.]
- Daniel C.I. Walsh, "Detecting and extracting complex patterns from images and realizations of spatial point processes." Ph.D. dissertation, University of Washington, 2000. [Lecturer in Statistics, Massey University, New Zealand]
- Samantha Bates Prins, "Bayesian inference for deterministic simulation models for environmental assessment." Ph.D. dissertation, University of Washington, 2001. [Professor of Statistics, James Madison University.]
- Russell Steele, "Importance sampling methods for inference in mixture models and missing data." Ph.D. dissertation, University of Washington, 2002. [Associate Professor of Statistics, McGill University.]
- Raphael Gottardo, "Robust Bayesian analysis of gene expression microarray data." Ph.D. dissertation, University of Washington, 2005. [Full Member, Fred Hutchinson Cancer Research Center, Seattle; formerly Assistant Professor of Statistics, University of British Columbia.]
- Nema Dean, "Variable selection and other advances in clustering based on mixture models." Ph.D. dissertation, University of Washington, 2006. [Senior Lecturer in Statistics, University of Glasgow.]
- Veronica Berrocal, "Probabilistic weather forecasting with spatial dependence." Ph.D. dissertation, University of Washington, 2007. [Associate Professor of Biostatistics, University of Michigan.]
- Leontine Alkema, "Uncertainty assessments of demographic estimates and projections." Ph.D. dissertation, University of Washington, 2008. [Associate Professor of Biostatistics, University of Massachusetts, Amherst.]
- J. McLean Slaughter, "Probabilistic Weather Forecasting using Bayesian Model Averaging," Ph.D. dissertation, University of Washington, 2009. (Jointly advised with Tilmann Gneiting). [Associate Professor of Mathematics, Seattle University.]
- William Kleiber, "Multivariate geostatistics and geostatistical model averaging," Ph.D. dissertation, University of Washington, 2010. (Jointly advised with Tilmann Gneiting). [Assistant Professor of Applied Mathematics, University of Colorado Boulder.]
- Jennifer Chunn, "Bayesian Probabilistic Projections of Mortality," M.S. thesis, University of Washington, 2010. [Manager, Corporate Analytics, Nordstrom Inc.; Adjunct Professor of Statistics, Seattle University.]
- Le Bao, "Statistical Models for Estimating and Projecting HIV/AIDS Epidemics," Ph.D. dissertation, University of Washington, 2011. [Associate Professor of Statistics, Penn State University.]

- Nevena Lalic, “Joint Probabilistic Projection of Female and Male Life Expectancy,” M.S. thesis, University of Washington, 2011. [Data Scientist, Amazon, Seattle.]
- Mark Wheldon, “Bayesian Population Reconstruction: A Method for Estimating Age- and Sex-specific Vital Rates and Population Counts with Uncertainty from Fragmentary Data,” Ph.D. dissertation, University of Washington, 2013. [Statistician, United Nations Population Division; formerly Assistant Professor of Biostatistics, Auckland University of Technology, New Zealand.]
- Alec Zimmer, M.S., University of Washington, 2016. [Data scientist, Upstart Inc., Santa Clara, Calif.]
- Jonathan J. Azose, “Projection and Estimation of International Migration,” Ph.D. dissertation, University of Washington, 2016. [Data Scientist, Google.]
- William Chad Young, “Bayesian Methods for Inferring Gene Regulatory Networks.” Ph.D. dissertation, University of Washington, 2016. [Data Scientist, Fred Hutchinson Cancer Research Center, Seattle.]

PUBLICATIONS

I. Books

- *Sociological Methodology 1996*, edited by Adrian E. Raftery. Cambridge, Mass.: Basil Blackwell, 1996.
- *Sociological Methodology 1997*, edited by Adrian E. Raftery. Cambridge, Mass.: Basil Blackwell, 1997.
- *Sociological Methodology 1998*, edited by Adrian E. Raftery. Cambridge, Mass.: Basil Blackwell, 1998.
- *Statistics in the 21st Century*, edited by Adrian E. Raftery, Martin A. Tanner and Martin T. Wells. London: Chapman and Hall/CRC Press, 2002.

II. Articles in Peer-Reviewed Journals

1. Raftery, A.E. (1979). Un problème de ficelle. *Comptes rendus de l'Académie des Sciences de Paris, série A*, **289**, 703-705.
2. Raftery, A.E., Shier, P. and Obilade, T. (1980). Domestic space heating and solar energy in Ireland. *International Journal of Energy Research*, **4**, 31-39.
3. Raftery, A.E. (1980). Estimation efficace pour un processus autorégressif exponentiel à densité discontinue. *Publications de l'Institut de Statistique des Universités de Paris*, **25**, 64-91.
4. Fuchs, C., Broniatowski, M. and Raftery, A.E. (1981). Etude de la division cellulaire dans le méristème plan de la feuille du *Tropaeolum peregrinum* L. I. La distribution des mitoses dans une zone réduite de panenchyme pallisadique relève-t-elle du hasard? *Comptes rendus de l'Académie des Sciences de Paris, série III*, **292**, 347-352.
5. Fuchs, C., Broniatowski, M. and Raftery, A.E. (1981). Etude de la division cellulaire dans le méristème plan de la feuille de *Tropaeolum peregrinum* L. Structures présentées par la distribution des mitoses. *Comptes rendus de l'Académie des Sciences de Paris, série III*, **292**, 385-387.
6. Raftery, A.E. (1983). Comment on “Gaps and glissandos . . .”. *American Sociological Review*, **48**, 581-583.
7. Raftery, A.E. (1984). A continuous multivariate exponential distribution. *Communications in Statistics – Theory and Methods*, **13**, 947-965.
8. Murtagh, F. and Raftery, A.E. (1984). Fitting straight lines to point patterns. *Pattern Recognition*, **17**, 479-483.
9. Raftery, A.E. (1985). Social mobility measures for cross-national comparisons. *Quality and Quantity*, **19**, 167-182.
10. Raftery, A.E. and Hout, M. (1985). Does Irish education approach the meritocratic ideal? A logistic analysis. *Economic and Social Review*, **16**, 115-140.

11. Raftery, A.E. (1985). Time series analysis. *European Journal of Operational Research*, **20**, 127-137.
12. Raftery, A.E. (1985). Some properties of a new continuous bivariate exponential distribution. *Statistics and Decisions*, Supplement Issue No. 2, 53-58.
13. Raftery, A.E. (1985). A model for high-order Markov chains. *Journal of the Royal Statistical Society, series B*, **47**, 528-539.
14. Raftery, A.E. (1986). Choosing models for cross-classifications. *American Sociological Review*, **51**, 145-146.
15. Raftery, A.E. and Akman, V.E. (1986). Bayesian analysis of a Poisson process with a change-point. *Biometrika*, **73**, 85-89.
16. Akman, V.E. and Raftery, A.E. (1986). Asymptotic inference for a change-point Poisson process. *Annals of Statistics*, **14**, 1583-1590.
17. Raftery, A.E. (1986). A note on Bayes factors for log-linear contingency table models with vague prior information. *Journal of the Royal Statistical Society, series B*, **48**, 249-250.
18. Akman, V.E. and Raftery, A.E. (1986). Bayes factors for non-homogeneous Poisson processes with vague prior information. *Journal of the Royal Statistical Society, series B*, **48**, 322-329.
19. Raftery, A.E. (1987). Inference and prediction for a general order statistic model with unknown population size. *Journal of the American Statistical Association*, **82**, 1163-1168.
20. Raftery, A.E. (1988). Analysis of a simple debugging model. *Journal of the Royal Statistical Society, series C - Applied Statistics*, **37**, 12-22.
21. Raftery, A.E. (1988). Inference and prediction for the binomial N parameter: A hierarchical Bayes approach. *Biometrika*, **75**, 223-228.
22. Raftery, A.E. and Thompson, E.A. (1988). How many nuclear reactor accidents? *Journal of Statistical Computation and Simulation*, **29**, 347-350.
23. Raftery, A.E., Turet, P. and Zeh, J.E. (1988). A parametric empirical Bayes approach to interval estimation of bowhead whales, *Balaena mysticetus*, population size. *Report of the International Whaling Commission*, **38**, 377-388.
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VI. Software

1. SOCMOB: Analysis of mobility tables using a rank-based approach. Fortran. By A.E. Raftery, 1984.
2. MTD: Estimation of the Markov transition distribution (MTD) model for higher-order Markov chains (written by S. Tavaré and A.E. Raftery, 1990-4).
3. FRACDIFF: Estimation of fractionally-differenced ARIMA (p,d,q) models for long-memory time series (written by C. Fraley and A.E. Raftery, 1991). (Fortran and Splus versions; R port 2003.)
4. MCLUST: Model-based and heuristic clustering, Bayesian determination of the number of clusters, and robust clustering (written by C. Fraley and A.E. Raftery, 1991–2003; R port 2003–5).
5. GIBBSIT: Determination of the number of iterations in the Gibbs sampler (written by A.E. Raftery, 1991; revised 1995; included in CODA and other MCMC postprocessing software, 1995-2005).
6. GLIB: Bayesian estimation, model selection and accounting for model uncertainty in generalized linear models. Written in S-PLUS by A.E. Raftery, 1993-1996.
7. BICREG: Bayesian model selection and accounting for model uncertainty in linear regression models (Splus). By A.E. Raftery, 1994–1996.
8. BIC.LOGIT: Bayesian model selection and accounting for model uncertainty in logistic regression models (Splus). By A.E. Raftery, 1994.

9. ACE.LOGIT: ACE (Alternating Conditional Expectations) analysis for logistic regression (Splus). By A.E. Raftery, 1994.
10. AR.ROBUST: Robust Bayesian model selection for autoregressive time series models. By N.D. Le, 1995.
11. BIC.SURV: Bayesian model selection and Bayesian model averaging for Cox proportional hazards models (Splus). By C.T. Volinsky, 1996.
12. BIC.GLM: Bayesian model selection and Bayesian model averaging for generalized linear models (Splus). By C.T. Volinsky, 1996.
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14. covRobust: Robust covariance estimation (R package). By N. Wang, A.E. Raftery and C. Fraley, 2003.
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17. mcgibbsit: Warnes and Raftery's MCGibbsit MCMC diagnostic (R package), 2005. By G. Warnes, 2005.
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19. RAMA: Robust analysis of microarrays (Bioconductor R package). By R. Gottardo, 2004.
20. BRIDGE: Bayesian robust inference for differential gene expression (Bioconductor R package). By R. Gottardo, 2005.
21. BMA: Bayesian model averaging. (R package). By A.E. Raftery, I.S. Painter and C.T. Volinsky, 2005.
22. bayesTFR: Probabilistic forecasting of the Total Fertility Rate. (R package). By H. Ševčíková, L. Alkema and A. E. Raftery, 2010.
23. bayesLife: Probabilistic forecasting of life expectancy. (R package). By H. Ševčíková and A. E. Raftery, 2010.
24. IMIS: Incremental Mixture Importance Sampling. By A.E. Raftery and L. Bao, 2010.
25. bayesPop: Probabilistic population projection. (R package). By H. Ševčíková, A. E. Raftery and T. Buettner, 2012.
26. dma: Dynamic Model Averaging. (R package). By T.H. McCormick, A.E. Raftery and D. Madigan, 2012.