

# Galin L. Jones

1

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## Contact Information

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## Education

PhD in Statistics, 2001, University of Florida (Advisor: James P. Hobert)

Dissertation Title: Convergence Rates and Monte Carlo Standard Errors for Markov  
Chain Monte Carlo Algorithms

MStat, 1999, Department of Statistics, University of Florida

BS (with honors), 1996, University of Florida

Major: Mathematics      Minor: Physics

## Professional Experience

University of Minnesota, School of Statistics

Professor, since 2014

Associate Professor, 2007–2014

Assistant Professor, 2001–2007

University of Florida

Statistical Research Coordinator, Institute of Food and Agricultural Sciences Statistical  
Consulting Unit, 1999–2001

Intern / SAS database programmer, Pediatric Oncology Group, 1997

University of Warwick, Coventry UK

Visiting Scholar, Department of Statistics, Fall 2011

## Fellowship

Fellow of the American Statistical Association

Joan S. Mendenhall Fellow, 1996–1997

## **Research Activities**

### **Research Grants**

“Developing a Methodological Framework for High-Dimensional Markov Chain Monte Carlo.” National Science Foundation, 2013-2015, with James Flegal.

“Large  $n$  Large  $p$  Methods.” National Institutes of Health, 2010-2017, with Brian Caffo and Ciprian Crainiceanu.

“Output Analysis for Markov Chain Monte Carlo.” National Science Foundation, 2008-2011.

### **Publications**

#### **Under Review**

Mallik, A. and Jones, G. L. Directional Metropolis-Hastings.

Xiang, D. and Jones, G. L. Fully Bayesian Penalized Regression.

Vats, D., Flegal, J. M. and Jones, G. L. Multivariate output analysis for Markov chain Monte Carlo.

Bezener, M., Hughes, J. and Jones, G. L. Bayesian spatiotemporal modeling using hierarchical spatial priors with applications to functional magnetic resonance imaging.

Acosta, F., Jones, G. L. and Huber, M. Markov Chain Monte Carlo with Linchpin Variables.

#### **Books**

Brooks, S. P., Gelman, A. Jones, G. L. and Meng, X.-L., Editors. *Handbook of Markov Chain Monte Carlo*. Chapman & Hall / CRC Press.

Jones, G. L. and Shen, X., Editors. *Advances in Modern Statistical Theory and Applications: A Festschrift in Honor of Morris L. Eaton*. Beachwood, Ohio, USA: Institute of Mathematical Statistics, 2013.

#### **Articles**

Sobel, K., Ramsey, P. and Jones, G. L. The Professor-Librarian: Academic Librarians Teaching Credit-Bearing Courses. To appear in *Public Services Quarterly*.

Bezener, M., Eberly, L. E., Hughes, J., Jones, G. L., and Musgrove, D. R. Bayesian spatiotemporal modeling for detecting activation via functional magnetic resonance imaging. To appear in *Handbook of Big Data Analytics*.

- Vats, D., Flegal, J. M. and Jones, G. L. Strong consistency of multivariate spectral variance estimators in Markov chain Monte Carlo. To appear in *Bernoulli*.
- Dai, N. and Jones, G. L. (2017) Multivariate initial sequence estimators in Markov chain Monte Carlo. *Journal of Multivariate Analysis*, 159:184–199.
- Johnson, A. A. and Jones, G. L. (2015). Geometric ergodicity of random scan Gibbs samplers for hierarchical one-way random effects models. *Journal of Multivariate Analysis*, 140:325–342.
- Ferrer-Vincent, I. J., Bruehl, M., Pan, D. and Jones, G. L. (2015). Introducing scientific literature to honors general chemistry students: First-year embedded information literacy and the nature of research. *Journal of Chemical Education*, 92:617–624.
- Doss, C., Flegal, J. M., Jones G. L. and Neath, R.C. (2014). Markov Chain Monte Carlo Estimation of Quantiles. *Electronic Journal of Statistics*, 8:2448-2478.
- Lee, K.-J., Jones, G. L., Caffo, B. S. and Bassett, S. (2014). Spatial Bayesian selection models on functional magnetic resonance imaging time-series data. *Bayesian Analysis*, 9:699–732.
- Shea, B. P. and Jones, G. L. (2014). Evaluating default priors with a generalization of Eaton's Markov chain. *Annales de l'Institut Henri Poincaré, Probabilités et Statistiques*, 50:1069–1091.
- Jones, G. L., Roberts, G. O. and Rosenthal, J. S. (2014) Convergence of conditional Metropolis-Hastings samplers. *Advances in Applied Probability*, 46:422–445.
- Tan, A., Jones, G. L. and Hobert, J. P. (2013). On the geometric ergodicity of two-variable Gibbs samplers, *Advances in Modern Statistical Theory and Applications: A Festschrift in Honor of Morris L. Eaton*, 25–42, Institute of Mathematical Statistics, Beachwood, Ohio, USA.
- Johnson, A. A., Jones, G. L., and Neath, R. C. (2013). Component-wise Markov chain Monte Carlo: Uniform and geometric ergodicity under mixing and composition. *Statistical Science*, 28:360–375.
- Flegal, J. M. and Jones, G. L. (2011.) Implementing Markov chain Monte Carlo: Estimating with confidence. Brooks, S., Gelman, A. Jones, G. L. and Meng, X.-L., Editors *Handbook of Markov Chain Monte Carlo*. 175–197.
- Johnson, A. A. and Jones, G. L. (2010). Gibbs Sampling for a Bayesian Hierarchical General Linear Model. *Electronic Journal of Statistics*, 4:313-333.

- Flegal, J. M. and Jones, G. L. (2010). Batch Means and Spectral Variance Estimators in Markov Chain Monte Carlo. *The Annals of Statistics*, 38:1034–1070
- McCown, J. L., Cooke, K. L., Hanel, R. M., Jones, G. L. and Hill, R. C. (2009). Effect of antivenin dose on outcome in canine Crotalid envenomation: 218 dogs (1988-2006). *Journal of Veterinary Emergency and Critical Care*, 19:603-610
- Eaton, M. L., Hobert, J. P., Jones, G. L. and Lai, W.L. (2008). Evaluation of formal posterior distributions via Markov chain arguments. *The Annals of Statistics*, 36:2423–2452
- Flegal, J. M., Haran, M. and Jones, G. L. (2008). Markov chain Monte Carlo: Can we trust the third significant figure? *Statistical Science*, 23:250–260
- Eaton, M. L., Hobert, J. P. and Jones, G. L. (2007). On perturbations of strongly admissible prior distributions. *Annales de l'Institut Henri Poincaré, Probabilités et Statistiques*, 43:633–653
- Jones, G. L., Haran, M., Caffo, B. S., and Neath, R. (2006). Fixed-width output analysis for Markov chain Monte Carlo. *Journal of the American Statistical Association*, 101:1537–1547
- Hobert, J. P., Jones, G. L. and Robert, C. P. (2006). Using a Markov chain to construct a tractable approximation of an intractable probability distribution. *Scandinavian Journal of Statistics*, 33:37–51
- Hill, R. C., Burrows, C. F., Bauer, J. E., Ellison, G. W., Finke, M. D. and Jones, G. L. (2006). Texturized vegetable protein containing indigestible carbohydrate from soy affects post-prandial blood insulin concentrations in normal dogs fed high fat diets. *Journal of Nutrition*, 136: 2024S.
- Caffo, B. S., Jank, W., and Jones, G. L. (2005). Ascent-Based Monte Carlo EM. *Journal of the Royal Statistical Society Series B*, 67:235–251
- Hill, R. C., Lewis, D. D., Randell, S. J., Scott, K. C., Omori, M., Sundstrom, D. A., Jones, G. L., Speakman, R. F., and Butterwick, R. F. (2005). Effect of mild restriction of food intake on the speed of racing greyhounds. *American Journal of Veterinary Research*, 16:1065–1070.
- Jones, G. L. (2004). On the Markov chain central limit theorem. *Probability Surveys*, 1:299–320.
- Jones, G. L. and Hobert, J. P. (2004). Sufficient Burn-in for Gibbs Samplers for a Hierarchical Random Effects Model. *The Annals of Statistics*, 32:784–817.
- Andrew, S. E., Nguyen, A., Jones, G. L., and Brooks, D.E. (2003). Seasonal effects on the aer-

- obic bacterial and fungal conjunctival flora of normal thoroughbred brood mares in Florida. *Veterinary Ophthalmology* 6 (1): 45-50.
- Hobert, J. P., Jones, G. L., Presnell, B., and Rosenthal, J. S. (2002). On the applicability of regenerative simulation in Markov chain Monte Carlo. *Biometrika*, 89:731–743.
- Jones, G. L. and Hobert, J. P. (2002). Markov chain Monte Carlo. *The Encyclopedia of Environmental Metrics*, W. Piegorsch and A. El-Shaarawi, eds. Wiley, New York.
- Colahan, P. T., Bailey, J. E., Chou, C. C., Johnson, M., Rice, B. L., Jones, G. L., Cheeks J.P. (2002). Effect of flunixin meglumine on selected physiologic and performance parameters of athletically conditioned thoroughbred horses subjected to an incremental exercise stress test. *Veterinary Therapeutics* Spring; 3(1):37-48.
- Colahan, P. T., Bailey, J. E., Johnson, M., Rice, B. L., Chou, C. C., Cheeks J.P. Jones, G. L., Yang, M. (2002). Effect of sulfadiazine and pyrimethamine on selected physiologic and performance parameters in athletically conditioned thoroughbred horses during an incremental exercise stress test. *Veterinary Therapeutics* Spring; 3(1):49-63.
- Scott, K. C., Hill, R. C., Lewis, D. D., Gronwall, R., Sundstrom, D. A., Jones, G. L., and Harper, J. (2002). Serum ascorbic acid concentrations in previously unsupplemented greyhounds after administration of a single dose of ascorbic acid intravenously or per os. *Journal of Animal Physiology and Animal Nutrition* 86 (7-8): 222–228.
- Marshall, R. J., Scott, K. C., Hill, R. C., Lewis, D. D., Sundstrom, D., Harper, J., and Jones, G. L. (2002). Supplemental vitamin C appears to slow racing greyhounds. *Journal of Nutrition* 132 (6): 1616S-1621S.
- Iczkowski, K. A., Casella, G., Seppala, R. J., Jones, G. L., Mishler, B. A., Qian, J., and Bostwick, D. G. (2002). Needle core length in sextant biopsy influences prostate cancer detection rate. *Urology* 59 (5): 698–703.
- Lorenzo-Figueras, M., Jones, G. L., and Merritt, A. M. (2002). Effects of various diets on gastric tone in the proximal portion of the stomach of horses. *American Journal of Veterinary Research* 63 (9): 1275–1278.
- Jones, G. L. and Hobert, J. P. (2001). Honest exploration of intractable probability distributions via Markov chain Monte Carlo. *Statistical Science*, 16:312–334.
- Hill, R. C., Fox, L. E., Lewis, D. D., Beale, K. A., Nachreiner, R. E., Scott, K. C., Sundstrom, D. A.,

Jones, G. L., and Butterwick, R. F. (2001). The effect of racing and training on serum thyroid hormone concentrations in racing greyhounds. *American Journal of Veterinary Research* 62 (12): 1969–1972.

Walker, M. C., Hill, R. C., Guilford, W. G., Scott, K. C., Jones, G. L., and Buergelt, C. D. (2001). Postprandial venous ammonia concentrations in the diagnosis of hepatobiliary disease in dogs. *Journal of Veterinary Internal Medicine* 15 (5): 463–466.

Hill, R. C., Lewis, D. D., Scott, K. C., Omori, M., Sundstrom, D., Jones, G. L., Speakman, J. R., Doyle, C. A., and Butterwick, R. F. (2001). Effect of increased dietary protein and decreased dietary carbohydrate on performance and body composition in racing greyhounds. *American Journal of Veterinary Research* 62 (3): 440–447.

Snyder, P. S., Sadek, D., and Jones, G. L. (2001). Effect of amlodipine on echocardiographic variables in cats with systemic hypertension. *Journal of Veterinary Internal Medicine* 15: 52–56.

Hill, R. C., Bloomberg, M. S., Legrand-Defretin, V., Burger, I. H., Hillock, S. M., and Jones, G. L. (2000). Maintenance energy requirements and the effect of diet on performance in racing greyhounds. *American Journal of Veterinary Research* 61 (12): 1566–1573 .

### **Other Publications**

Jones, G. L. and Johnson, A. A. (2008). Comment: Gibbs sampling, exponential families, and orthogonal polynomials. *Statistical Science*, 23:183–186

Neath, R. and Jones, G. L. (2007). Mixed Models. *The Encyclopedia of Measurement and Statistics*.

Jones, G. L. (2006). Book Review of Givens, G. H. and Hoeting, J. A. (2005), *Computational Statistics*, Wiley. *Journal of the American Statistical Association* 101: 856.

Caffo, B. S. and Jones, G. L. (2001). Solutions manual for Wackerly, Mendenhall, and Scheaffer's *Mathematical Statistics with Applications* Sixth Edition, Duxbury Press, Belmont CA.

### **Selected Proceedings and Technical Papers**

Jones, G. L. and Littell, R. C. (October 2000). Predicting final season batting averages from early season results: an exercise in modeling. *American Statistical Association 2000 Proceedings of the Section on Statistics in Sports*.

- Littell, R. C., Jones, G. L., Dudeck, A. E. (2000). Statistical comparisons and ranking of turfgrass entries based on rating data. *National Turfgrass Evaluation Program Technical Paper*.
- Iczkowski, K. A., Jones, G. L., Casella, G., Mishler, B. A., Qian, J. and Bostwick, D. G. (January 2002). Variation in tissue sampled by sextant biopsy influences prostate cancer detection rate. *Laboratory Investigation* 82(1): 687; *Modern Pathology* 15(1): 687.
- Andrew, S. E., Nguyen, A., Jones, G. L., Brooks DE (2001). Seasonal differences in the bacterial and fungal flora of the normal Thoroughbred horse eye. *Veterinary Ophthalmology* 4(4):293; *Proceedings of the American College of Veterinary Ophthalmologists 2001*:42.
- Farese, J. P., Fox, L. E., Detrisac, C., Van Gilder, J., Jones, G. L., Baldwin, J., and Roberts, S. L. (October 2001). The Effect of Thalidomide on a Highly Metastasizing Canine Osteosarcoma Cell Line in Athymic Nude Mice. *Veterinary Cancer Society Proceedings, 21st Annual Conference*.
- Scott, K. C., Hill, R. C., Lewis, D. D., Sundstrom, D., Jones, G. L. and Harper, J. (March 2001). The effect of single dose oral and intravenous ascorbic acid on serum concentrations in un-supplemented dogs. *The FASEB Journal* 15(5): A965–A965.
- Smith, C. L., Hochmuth, G. J., and Jones, G. L. (September 2000). Magnesium fertilization of slicing cucumber. *Proceedings of the Florida State Horticulture Society*.
- Sidman, C., Antonini, G., Sauers, S., Jones, G. L., and West, N. (August 2000). Evaluating recreational boating patterns at selected sites in southwest Florida for regional anchorage management. *Florida Sea Grant College Program Technical Paper 105*.
- Colahan, P., Bailey, J., Johnson, M., Rice, B., Cheeks, J., Chou, C. C., and Jones, G. L. (August 2000). The combined effect of flunixin meglumine and exercise on selected physiological parameters and athletic performance of conditioned thoroughbred horses. *State of Florida Division of Pari-Mutuel Wagering Technical Report*.
- Roberts, G. R., Graham, J. P., Newell, S. M., Colahan, P. T., and Jones, G. L. (1999). Effects of local external magnetotherapy on the appearance of equine metacarpal scintigraphy. *45th Annual American Association of Equine Practitioners Proceedings*.

#### **Invited Conference Presentations**

- “Component-wise Markov Chain Monte Carlo,” December 11, 2017, QMC Program: Trends and Advances in Monte Carlo Sampling Algorithms Workshop, SAMSI Durham NC.

“Multivariate Output Analysis in Markov Chain Monte Carlo,” (1) August 1, 2017 Joint Statistical Meetings, Baltimore, MD; (2) August 17, 2017 Kliakhandler Conference, Michigan Technological University, Houghton, MI.

“Convergence of Gibbs Samplers and Output Analysis in a Bayesian Linear Model,” July 28, 2017 London Mathematical Society – EPSRC Durham Symposium: Markov Processes, Mixing Times and Cutoff, Durham University, United Kingdom.

“Estimating Neuron Fiber Orientation via Diffusion MRI,” (1) July 14, 2016 XXVIIIth International Biometrics Conference, Victoria, BC; (2) November 11, 2016 University of St. Thomas, St Paul, MN.

“Multivariate Markov chain Monte Carlo Output Analysis,” August 12, 2015 Joint Statistical meetings, Seattle, WA.

“Markov chain Monte Carlo: Estimating with Confidence,” July 26, 2014 MCFAM Summer Symposium - Predictive Modeling in Quantitative Finance and Actuarial Risk Management, Minneapolis, MN

“Markov chain Monte Carlo with Linchpin Variables” January 6, 2014 MCMSki, Fourth International IMS/ISBA Joint Meeting, Chamonix, France.

“Markov Chain Monte Carlo: Can We Trust the Third Significant Figure?,” (1) August 5, 2008 Joint Statistical Meetings, Denver CO; (2) June 27, 2012 ISBA<sup>1</sup> 2012, Kyoto, Japan; (3) April 25, 2014 SLAMM!<sup>2</sup> 2014, University of Minnesota.

“Introduction to Markov Chain Monte Carlo” August 7, 2012 Statistical Models in Business and Finance, University of St. Thomas.

“Spatial Variable Selection Models for fMRI Time Series Data” June 14, 2011 Statistical Society of Canada, Acadia University, Nova Scotia, Canada.

“Regeneration in Markov chain Monte Carlo” (1) January 4, 2011 AdapskIII, Fourth International IMS/ISBA Joint Meeting, The Canyons, Park City, Utah; (2) February 10, 2011 Information Theory and Applications, University of California, San Diego.

“Variable-at-a-time Markov chain Monte Carlo” (1) June 3, 2009 Optimisation of MCMC Algorithms Workshop, University of Warwick; (2) June 21, 2010 International Chinese Statistical

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<sup>1</sup>International Society for Bayesian Analysis

<sup>2</sup>St. Louis Area Methods Meeting



Association 2010 Applied Statistics Symposium, Indianapolis, IN.; (3) August 12, 2010 University of Warwick; August 20, 2010 MCQMC Conference, Warsaw, Poland.

“Fixed-Width Output Analysis for Markov Chain Monte Carlo,” (1) May 14, 2007 The Third Workshop on Monte Carlo Methods, Harvard University; (2) June 6, 2007 DIMACS Workshop on Markov Chain Monte Carlo, Rutgers University; (3) January 2, 2008 International Conference on Statistical Paradigms, Indian Statistical Institute, Kolkata, India; (4) March 19, 2009 EPSRC Symposium on Markov Chain Monte Carlo, University of Warwick.

“Evaluating Improper Priors” January 13, 2010 Joint Mathematics Meetings, San Francisco CA.

“Output Analysis for Markov Chain Monte Carlo,”(1) June 29, 2004 WNAR/IMS 2004 Meeting, Albuquerque, NM; (2) January 14, 2005 Second IMS–ISBA Joint Meeting, Bormio, Italy

“Honest Exploration of Intractable Probability Distributions via Markov Chain Monte Carlo,” June 5, 2001 SRCOS/ASA Summer Research Conference, Saint Augustine, FL.

“Predicting Final Season Batting Averages from Early Season Results: An Exercise in Modeling,” August 14, 2000 Joint Statistical Meetings, Indianapolis, IN.

#### **Other Invited Presentations**

“Bayesian Penalized Regression”, September 7, 2017, Ohio State University, Columbus, Ohio; October 9, 2017, Twin Cities ASA Fall Research Meeting, Minneapolis, MN; October 12, 2017, University of Florida, Gainesville, FL.

“Multivariate Output Analysis for Markov chain Monte Carlo”, November 6, 2015, Duke University, Durham, North Carolina.

“Bayesian Spatio-Temporal Modeling Using Hierarchical Spatial Priors with Applications to fMRI”, March 17, 2015 National Cheng Kung University, Tainan City, Taiwan.

“Spatial Variable Selection Models for fMRI Time Series Data” December 16, 2011 Bristol University, Bristol, United Kingdom.

“Component-wise Markov Chain Monte Carlo” (1) October 14, 2010 University of Iowa, Iowa City, IA.; (2) November 8, 2010 Iowa State University, Ames, IA.; (3) November 17, 2010 Division of Biostatistics, University of Minnesota, Minneapolis, MN.; (4) October 17, 2011 Harvard University, Cambridge MA.; (5) May 31, 2013 National Cheng Kung University, Tainan City, Taiwan; September 11, 2013 University of Wisconsin-Madison.

“Introduction to Markov Chain Monte Carlo” (1) April 15, 2011 University of St. Thomas Applied Mathematics and Statistics Seminar, St. Paul, MN.; (2) March 8, 2013 Minnesota Center for Financial and Actuarial Mathematics, University of Minnesota, Minneapolis, MN.

“Output Analysis for Markov Chain Monte Carlo” January 22, 2010 Université de Montréal, Montréal Quebec Canada.

“Variable-at-a-time Markov chain Monte Carlo” (1) February 23, 2010 University of California-Riverside, Riverside, CA; (2) August 12, 2010 University of Warwick.

“Markov Chain Monte Carlo: Can We Trust the Third Significant Figure?,” (1) October, 18 2007 University of Toronto; (2) September 10, 2008 Johns Hopkins University, Baltimore, MD.; (3) April 29, 2011 Meeting of the Twin Cities Chapter of the American Statistical Association, Minneapolis, MN.

“Fixed-Width Output Analysis for Markov Chain Monte Carlo,” (1) October 2, 2006 Colorado State University; (2) January 12, 2006 The Ohio State University; (3) May 17, 2007 University of Bristol, Bristol UK.

“Evaluating Improper Priors” (1) January 9, 2007 Michigan State University; (2) December 1, 2005 University of Toronto, Toronto, Canada.

Panelist for “Challenges in Computational Statistics for E-Commerce Data,” May 22, 2006 Second Statistical Challenges in E-Commerce Research Symposium held at Carlson School of Management, University of Minnesota.

“Ascent-based Monte Carlo EM,” (1) April 14, 2005 The Pennsylvania State University; (2) November 20, 2002 University of Minnesota (Division of Biostatistics); (3) August 14, 2002 Joint Statistical Meetings, New York, NY.

“Output Analysis for Markov Chain Monte Carlo,” October 21, 2004 University of Toronto.

“Revisiting Gibbs Sampling in Hierarchical Models,” March 14, 2002 University of Maryland.

“Honest Exploration of Intractable Probability Distributions via Markov Chain Monte Carlo,” (1) September 19, 2001 Johns Hopkins University; (2) February 28, 2001 Pennsylvania State University; (3) February, 15, 2001 North Carolina State University; (4) February, 13, 2001 University of Minnesota; (5) February 5, 2001 University of Colorado at Boulder; (6) February 1, 2001 University of Illinois; (7) January 29, 2001 Purdue University; (8) January 23, 2001 Michigan State University.

“Computable Bounds for the Convergence Rate of a Block Gibbs Sampler,” April 13, 2001 University of Toronto, Toronto, Canada.

“Analyzing Longitudinal Data,” March 17, 2000 Seminars in Pathophysiology for the College of Veterinary Medicine at the University of Florida.

## **Teaching and Mentoring**

### **PhD Students**

Ongoing: Ning Dai, Karl Oskar Ekvall, Haema Nilakanta, Ding Xiang, Yang Yang

Dootika Vats, February 2017, “Output Analysis for Markov chain Monte Carlo.” Current Position: NSF-funded postdoc at University of Warwick.

Christina Knudson (Co-advisor with Charles Geyer), December 2015, “Monte Carlo Likelihood Approximation for Generalized Linear Mixed Models.” Current Position: Assistant Professor at University of St. Thomas.

Felipe Acosta, December 2015, “Markov Chain Monte Carlo for Mixed Models.” Current Position: Employed at Natera.

Martin Bezener, January 2014, “Bayesian Spatiotemporal Modeling using Hierarchical Spatial Priors with Applications to Functional Magnetic Resonance Imaging.” Current Position: Employed at Stat-Ease.

Kuo-Jung Lee, July 2010, “Computational Issues in Using Bayesian Hierarchical Methods for Spatial Modeling of fMRI Data.” Current Position: Assistant Professor at National Cheng Kung University, Tainan City, Taiwan.

Alicia Johnson, July 2009, “Geometric Ergodicity of Gibbs Samplers.” Current Position: Associate Professor, Department of Mathematics and Computer Science at Macalester College.

James Flegal (Co-advisor with Glen Meeden), June 2008, “Monte Carlo Standard Errors for Markov Chain Monte Carlo.” Current position: Associate Professor, Department of Statistics at University of California, Riverside.

Ronald Neath (Co-advisor with Morris Eaton), August 2006, “Monte Carlo Methods for Likelihood-Based Inference in Hierarchical Models.” Current position: Lecturer in Discipline, Department of Statistics, Columbia University.

### **Master’s (Plan B) Students**

Purba Mondal, Fall 2017, “Variational Inference versus Gibbs Sampling.”

Teng Peng, Spring 2017, “Yelp Image Classification.”

Bryan McCauley, Spring 2013, “Predicting Major League Performance with Minor League Performance.”

Jeffrey Clobes, Summer 2012, “On the Probability of Winning a Football Game—Revisiting Hal Stern’s Paper.”

Christine Oehlert, Summer 2011, “Causes of Water Variation.”

Daeun Jun, Summer 2010, “Admissibility of Bayes Estimators.”

Marta Shore, Fall 2007, “Using Linear Regression to Evaluate Managerial Strategies in Major League Baseball.”

Andrew Finley, Summer 2007, “An R Package for Fitting Bayesian Spatial Models.”

Alexia Zarling, Summer 2007, “FIS Points vs. BLUPS: Ranking World Cup Skiers.”

Yiqun Mou, Summer 2006, “Monte Carlo Likelihood Approximation Methods for Geostatistical Models.”

William Aflege, Summer 2006, “Longitudinal Analysis of Minnesota’s Operation NightCAP Program.”

Fred Kueffer, Spring 2004, “Predicting Baseball Season Ending Winning Percentages Utilizing Mixed Model Methodology.”

Francisca Winston, Spring 2003, “Evaluating Random-Effects Models for Estimating Voter Preference in the 2000 Presidential Election.”

### **Classroom Instruction at University of Minnesota**

STAT 3011 *Introduction to Statistical Analysis*, Fall 2001, Fall 2003, Fall 2004, Spring 2006

STAT 5021 *Statistical Analysis*, Spring 2002, Fall 2002, Spring 2005, Fall 2006

STAT 5401 *Applied Multivariate Statistics*, Spring 2015

STAT 5932 *Applied Mixed Models*, Spring 2005, Spring 2007

STAT 8054 *Advanced Statistical Computing*, Spring 2012, Spring 2013

STAT 8101 *Theory of Statistics I*, Fall 2002, Fall 2003

STAT 8102 *Theory of Statistics 2*, Spring 2003, Spring 2004

STAT 8111 *Mathematical Statistics 1*, Fall 2007, Fall 2008, Fall 2009, Fall 2010, Fall 2013

STAT 8112 *Mathematical Statistics 2*, Spring 2008, Spring 2009

STAT 8311 *Theory of Linear Models*, Fall 2015

STAT 8701 *Computational Statistical Methods*, Spring 2006, Spring 2007

STAT 8913 *Literature Seminar*, Spring 2017

STAT 8931 *Special Topics: Markov chain Monte Carlo*, Fall 2014

STAT 8932 *Special Topics: Conditional Inference*, Spring 2017

### **Workshops**

“Stationary Processes and Markov Chain Monte Carlo” 8 lectures in November 2011 University of Warwick, Coventry, UK.

“An Introduction to Using Mixed Models in R,” March 28, 2011 for the Quantitative Methods Collaborative, University of Minnesota.

“An Introduction to R and Applications with Mixed Linear Models,” May 29 & 30, 2003 Minnesota Department of Natural Resources.

“Detecting Multicollinearity,” November 7, 1997 IFAS<sup>3</sup> Citrus Research and Education Center, Lake Alfred, FL.

“Diagnostic Plots for Linear Regression,” October 22, 1997 IFAS Workshop Series at the University of Florida.

### **Service Activities**

#### **School of Statistics**

Director of the School of Statistics, since 2016.

Director of Graduate Studies, 2007-2016

Chair of Graduate Admissions Committee, 2007–2014

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<sup>3</sup>Institute for Food and Agricultural Sciences

Search Committee for Tenure-track Assistant Professor, 2013

Colloquium Coordinator, 2002–2003, Fall 2007

Search Committee for Consulting Manager, 2008

PhD Exam Committee, 2003, 2004, 2016

Master's Exam Committee, 2002

Curriculum Committee, 2006–2007, 2015–2016

Computing Committee, 2003–2004, 2004–2005

### **College and University-level**

Member of CLA Roadmap Goal Group #3 - Leadership, 2015

Chair of Academic Misconduct Panel for the Office of the General Counsel, 2015.

Minnesota Center for Financial and Actuarial Mathematics Advisory Board, 2014-2016

Minnesota Futures Grant Program reviewer, 2013

College of Liberal Arts Quantitative Methods Collaborative since 2012

Search Committee for Biostatistics Tenure Track Faculty, 2008

College of Liberal Arts Information Technology Committee, 2003–2006

### **Editorial Activities**

Guest Associate Editor for *Statistics and Computing* 2014.

Associate Editor for *Journal of the American Statistical Association* since 2014.

Associate Editor for *Journal of Computational and Graphical Statistics* since 2008.

Served as a referee for *Acta Mathematica Universitatis Comenianae*, *AISTATS 2012*, *AISTATS 2013*, *American Journal of Epidemiology*, *Bernoulli*, *Biometrika*, *Canadian Journal of Statistics*, *Computational Statistics and Data Analysis*, *Electronic Communications in Probability*, *Electronic Journal of Probability*, *Encyclopedia of Environmetrics*, *Handbook of Big Data Analytics*, *INFORMS Computing Society Journal*, *Journal of Applied Probability*, *Journal of Complexity*, *Journal of Computational and Graphical Statistics*, *Journal of Statistical Planning and Inference*, *Journal of the American Statistical Association*, *Journal of Machine Learning Research*, *Journal of the Royal Statistical Society (Series B)*, *Journal of Theoretical Probability*, *Journal of Veterinary Cardiology*, *Markov Processes and Related Fields*, *Mathematical Reviews (2005–2009)*, *NIPS*

*2014, NIPS 2015, Rocky Mountain Journal of Mathematics, Scandinavian Journal of Statistics, Statistical Science, Statistica Sinica, Statistical Methods in Medical Research, Statistical Modeling, Statistics and Probability Letters, Stochastic Processes and Their Applications, The American Statistician, The Annals of Applied Probability and The Annals of Statistics*

### **Professional Society**

Member of American Statistical Association, Institute of Mathematical Statistics, and International Society for Bayesian Analysis

Member of Management Committee for *Journal of Computational and Graphical Statistics*, 2017–2019.

Representative for regions 4 and 5 in the American Statistical Association Caucus for Academic Representatives, 2017–2020.

Treasurer for the Bayesian Computation section of the International Society for Bayesian Analysis, 2012–2014.

Institute of Mathematical Statistics Committee on New Researchers, 2004–2007

### **Conference Grants**

“Eighth North American Meeting of New Researchers in Statistics and Probability.” Office of Naval Research, 2005.

“Eighth North American Meeting of New Researchers in Statistics and Probability,” National Science Foundation, 2005.

### **Conference Organization**

Session organizer and chair at Sixth IMS-ISBA Bayesian Computation Joint Meeting, January 2016, Lenzerheide, Switzerland.

2014 Organizing Committee for Minnesota Center for Financial and Actuarial Mathematics Summer Symposium.

2013 Program Chair for Midwest Statistics Research Colloquium held at University of Wisconsin-Madison, March 2013.

Chair and Organizer of the 8th North American Meeting of New Researchers in Statistics and Probability held at the University of Minnesota in August 2005.

Scientific Committee Midwest Statistics Research Colloquium and chair of Statistical Computing subcommittee for 2008, 2009, 2010 and 2011.

Session Chair (1) Joint Statistical Meetings (2003, 2004, 2006); (2) Seventh North American New Researchers Conference, York University Toronto, Canada, 2004; (3) Second Statistical Challenges in E-Commerce Research Symposium held at Carlson School of Management, University of Minnesota, 2006.

#### **Grant Reviews**

National Science Foundation *ad hoc* Panel in 2012, 2014 ( $\times 2$ ), and 2016.

External Reviewer for Dutch Research Council (NWO) Gravitation Program, FONDECYT-Chile, United Kingdom Engineering and Physical Sciences Research Council, National Security Agency, National Science Foundation, City University of New York Research Foundation, National Security Agency Mathematical Sciences Program, and Natural Sciences and Engineering Research Council of Canada.