STEVEN NEIL MACEACHERN

PERSONAL

Birthdate: October 24, 1961
Married, two children

Work Address:
Department of Statistics
The Ohio State University
1958 Neil Avenue
Columbus, Ohio 43210-1247
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Home Address:
2820 Andover Road
Columbus, Ohio 43221
(614) 486-8468

EDUCATION

Ph.D., Statistics, University of Minnesota, 1988, Phi Kappa Phi
Dissertation Topic: Sequential Bayesian Bioassay Design
B.A., Mathematics, *magna cum laude,* Carleton College, 1982, Phi Beta Kappa, Sigma Xi

POSITIONS HELD

1979-82	Tutor, Department of Mathematics, Carleton College
1984,85	Statistical Researcher, AT&T Bell Laboratories, Murray Hill, NJ
1983-88	Teaching Assistant, School of Statistics, University of Minnesota
1987-88	Research Assistant, School of Statistics, University of Minnesota
1988-95	Assistant Professor, Department of Statistics, The Ohio State University
1993-94	Visiting Assistant Professor, Institute of Statistics and Decision Sciences, Duke University
1995-2001	Associate Professor, Department of Statistics, The Ohio State University
1997-98	Visiting Associate Professor, Department of Statistics, Carnegie Mellon University
2001-present	Professor, Department of Statistics, The Ohio State University
2008-2015	Member, Nationwide Center for Advanced Customer Insights Technical Research Committee
2012-present	Professor, Department of Psychology, The Ohio State University (courtesy appointment)
2015-present	Chair, Department of Statistics, The Ohio State University
2019-present	Senior Researcher, MiDaS, Pontificia Univesidad Catolica de Chile

HONORS

1978	Lester M. Mikelson Award in Chemistry, Marshall-University High School
1978-82	Four-year National Merit Scholarship,Carleton College
1981	National Science Foundation undergraduate research grant, Applied Mathematics (Intern at Northwestern National Life Insurance Company, Minneapolis)
1982-83	Graduate School Entrance Fellowship, University of Minnesota
1984-85	Fellowship, School of Statistics, University of Minnesota
1985-86	Doctoral Dissertation Fellowship, School of Statistics, University of Minnesota

1990, 1998, 2007, 2013	The Thomas E. and Jean D. Powers Award for Excellence in the Teaching of Statistics
2003	Best Paper at the 2003 ASA JSM Meeting, Section on Nonparametric Statistics, for "Nonparametric Two-Sample Methods for Ranked Set Sample Data", with Mike Fligner
2006	Elected Fellow of the American Statistical Association
2007	Elected Member of the International Statistical Institute
2018	Geisser Lecturer, School of Statistics, University of Minnesota
2019-current	Distinguished Arts & Sciences Professor of Statistics, The Ohio State University
2020	Elected Fellow of the International Society for Bayesian Analysis
2021	Elected Fellow of the Instititute of Mathematical Statistics
2021	Taft Lecturer, Department of Mathematical Sciences, University of Cincinnati
2021	Graduate Colloquium speaker, Northern Illinois University

RESEARCH INTERESTS

Bayesian methods; nonparametric Bayesian methods; robust methods; computational methods; psychometric models; ranked set sampling; chaotic models and dynamical systems.

PROFESSIONAL AFFILIATIONS

American Statistical Association
Institute of Mathematical Statistics
International Chinese Statistical Association
International Society for Bayesian Analysis
International Statistical Institute

PUBLICATIONS

Peer or Editor Reviewed

1 MacEachern, S.N. (1992). Discussion of "Bayesian Computations in Survival Models via the Gibbs Sampler", by L. Kuo and A.F.M. Smith, in Survival Analysis: State of the Art, J.P. Klein and P.K. Goel (eds.), 22-23.

2 MacEachern, S.N. (1992). Discussion of "Bayesian Nonparametric Survival Analysis: A Comparison of the Kaplan-Meier and Berliner-Hill Estimators", by B.M. Hill, in Survival Analysis: State of the Art, J.P. Klein and P.K. Goel (eds.), 44-45.

3 MacEachern, S.N. and E.A. Stasny (1993). An Easy Ridiculous Unbiased Estimator, Teaching Statistics 15, 12-14.

4 MacEachern, S.N. (1993). A Characterization of Some Conjugate Prior Distributions for Exponential Families, Scandinavian Journal of Statistics 20, 77-82.

5 MacEachern, S.N. (1993). An Evaluation of Bayes Posterior Probability Regions for a Survival Curve, Nonparametric Statistics 3, 175-186.

6 MacEachern, S.N. and L.M. Berliner (1993). Aperiodic Chaotic Orbits, American Mathematical Monthly 100, 237-241.

7 Berliner, L.M. and S.N. MacEachern (1993). Examples of inconsistent Bayes procedures based on observations on dynamical systems, Statistics & Probability Letters 17, 355-360.

8 MacEachern, S.N. (1993). Discussion of "Bayesian Inference for Agricultural Field Experiments" by J. Besag and D. Higdon; "A Two Stage Approach to the Minimum Effective Dose Determination in Phase I St udies" by A. Racine-Poon; "Bayesian Inference on the Lexis Diagram" by C. Berzuini, D. Clayton, and L. Bernardinelli, in Bulletin of the International Statistical Institute: Proceedings of the 49th Session (in Firenze, Italia), volume 4, 42-43.

9 MacEachern, S.N. (1994). Estimating Normal Means with a Conjugate Style Dirichlet Process Prior, Communications in Statistics: Simulation and Computation 23, 727-741.

10 MacEachern, S.N. and L.M. Berliner (1994). Subsampling the Gibbs Sampler, American Statistician 48, 188-190.

11 MacEachern, S.N. (1994). Discussion of "Some new tools for Dirichlet priors" by P. Diaconis and J. Kemperman, in the Bayesian Statistics 5, proceedings of the Fifth Valencia International Meeting on Bayesian Statistics, J.M. Bernardo, J.O. Berger, A.P. Dawid and A.F.M. Smith (eds.), 104-105.

12 MacEachern, S.N. and L.M. Berliner (1995). Asymptotic Inference for Dynamical Systems Observed with Error. Journal of Statistical Planning and Inference 46, 277-292.

13 MacEachern, S.N., W.I. Notz, D. Whittinghill, and Y. Zhu (1995). Robustness to the Unavailability of Data in the General Linear Model, with Applications. Journal of Statistical Planning and Inference 48, 207-213.

14 Bush, C.A. and S.N. MacEachern (1996). A Semi-parametric Bayesian Model for Randomized Block Designs. Biometrika 83, 275-286.

15 Berliner, L.M., S.N. MacEachern, and C.M. Scipione (1997). Ergodic Distributions of Random Dynamical Systems. Fields Institute Communications 11, 171-185.

16 Muller, P., M. West, and S.N. MacEachern (1997). Bayesian Models for Non-Linear Autoregressions. Journal of Time Series Analysis 18, 593-614.

17 Joshi, S. and S.N. MacEachern (1997). Isotonic Maximum Likelihood Estimation for the Change Point of a Hazard. Sankhya 59, 392-407.

18 Doss, H. and S.N. MacEachern (1997). "Dirichlet Process", in Encyclopedia of Mathematics, Supplement Volume I, ed. M. Hazewinkel. Kluwer Academic Publishers, 224-225.

19 MacEachern, S.N. (1998). Computational Methods for Mixture of Dirichlet Process Models, in "Practical Nonparametric and Semiparametric Bayesian Statistics", D. Dey, P. Muller, D. Sinha (eds.), Springer-Verlag: 23-44.

20 MacEachern, S.N. and P. Muller (1998). Estimating Mixture of Dirichlet Process Models. Journal of Computational and Graphical Statistics 7, 223-238.

21 Cooley, C.A. and S.N. MacEachern (1998). Classification via Kernel Product Estimators. Biometrika 85, 823-833.

22 MacEachern, S.N., M. Clyde, and J. Liu (1999). Sequential Importance Sampling for Nonparametric Bayes Models: The next generation. The Canadian Journal of Statistics 27, 251-267.

23 Cooley, C.A. and S.N. MacEachern (1999). Prior Elicitation in the Classification Problem. The Canadian Journal of Statistics 27, 299-313.

24 Ibrahim, J., M.-H. Chen and S.N. MacEachern (1999). Bayesian Variable Selection for Proportional Hazards Models. The Canadian Journal of Statistics 26, 701-718.

25 MacEachern, S.N. and Berliner, L.M. (1999). Discussion of "Information-theoretic characterizations of Bayes performance and the choice of priors in parametric and nonparametric problems", by A. Barron, in Bayesian Statistics 6, proceedings of the Sixth Valencia International Meeting on Bayesian Statistics, J.M. Bernardo, J.O. Berger, A.P. Dawid and A.F.M. Smith (eds.), 48-49.

26 MacEachern, S.N. (1999). Discussion of "Simulated Sintering", by J. Liu and C. Sabatti, in Bayesian Statistics 6, proceedings of the Sixth Valencia International Meeting on Bayesian Statistics, J.M. Bernardo, J.O. Berger, A.P. Dawid and A.F.M. Smith (eds.), 405-408.

27 MacEachern, S.N. (1999). Discussion of "Bayeisan nonparametric inference for random distributions and related functions", by S.G. Walker, P. Damien, P.W. Laud and A.F.M. Smith. Journal of the Royal Statistical Society, Series B., 61, 521.

28 MacEachern, S.N. (1999). Discussion of "Bayesian analysis of agricultural field experiments", by J. Besag and D. Higdon. Journal of the Royal Statistical Society, Series B., 61, 734.

29 MacEachern, S.N. and X. Shen (1999). Discussion of "Variable selection and function estimation in additive nonparametric regression using a data-based prior", by Shively, T., R. Kohn and Wood. Journal of the American Statistical Association, 94, 799-802.

30 MacEachern, S.N. and M. Peruggia (2000). Subsampling the Gibbs sampler: variance reduction. Statistics & Probability Letters 47, 91-98.

31 MacEachern, S.N. and M. Peruggia (2000). Importance Link Function Estimation for Markov Chain Monte Carlo Methods. Journal of Computational and Graphical Statistics 9, 99-121.

32 MacEachern, S.N. and Müller, P. (2000). Efficient MCMC Schemes for Robust Model Extensions using Encompassing Dirichlet Process Mixture Models in "Robust Bayesian Analysis", D. Rios Insua and F. Ruggeri (eds.), Springer-Verlag: 295-315.

33 MacEachern, S.N. and M. Peruggia. (2001). Bayesian Tools for EDA and Model Building: A Brainy Study. in "Case Studies in Bayesian Statistics, Vol. 5", 345–362. New York: Springer-Verlag.

34 MacEachern, S.N. (2001). Decision Theoretic Aspects of Dependent Nonparametric Processes. in "Bayesian Methods with Applications to Science, Policy, and Official Statistics", 551–560.

35 MacEachern, S.N., Ozturk, O., Wolfe, D.A., and G. Stark (2002). A new ranked set sample estimator of variance. Journal of the Royal Statistical Society, B 64, 177-188.

36 MacEachern, S.N. (2002). Discussion of "Hierarchical Bayesian models for applications in information retrieval", by Blei, Jordan and Ng. Bayesian Statistics 7, Proceedings of the Sixth Valencia International Meeting on Bayesian Statistics.

37 Graham, P.L., MacEachern, S.N., and D. Wolfe (2003). The unconditional and conditional censored Wilcoxon rank sum distributions: Tabulated values and p-value program. InterStat 1.

38 DeIorio, M., Muller, P., Rosner, G.L., and S.N. MacEachern (2003). ANOVA DDP Models: A review in "Nonlinear Estimation and Classification", D. D. Denison, M. H. Hansen, C. C. Holmes, B. Mallick and B. Yu (eds), Springer-Verlag: 467–475.

39 MacEachern, S.N., S. Guha, and M. Peruggia (2003). Discussion of "A theory of statistical models for Monte Carlo integration" by Kong, McCullagh, Nicolae, Tan and Meng. Journal of the Royal Statistical Society, Series B., 65, 612.

40 DeIorio, M., Muller, P., Rosner, G.L., and S.N. MacEachern (2004). An ANOVA Model for Dependent Random Measures. Journal of the American Statistical Association 99, 205-215.

41 MacEachern, S.N., Stasny, E.A., and D.A. Wolfe (2004). Judgement Post-Stratification with Imprecise Rankings. Biometrics 60, 207-215.

42 Guha, S., S.N. MacEachern, and M. Peruggia (2004). Benchmark Estimation for Markov Chain Monte Carlo Samples. Journal of Computational and Graphical Statistics 13, 683–701.

43 Ozturk, O. and S.N. MacEachern (2004). Control versus treatment comparison under order restricted randomization. Annals of the Institute of Statistical Mathematics 56, 701–720.

44 Mueller, P., G.L. Rosner, M. DeIorio, and S.N. MacEachern (2005). A nonparametric Bayesian model for inference for related longitudinal studies. Applied Statistics 54, 611–626.

45 Gelfand, A.E., Kottas, A., and S.N. MacEachern (2005). Bayesian nonparametric spatial modelling with Dirichlet process mixing. Journal of the American Statistical Association 100, 1021–1035.

46 Fligner, M.A. and S.N. MacEachern (2006). Ranked set sampling: models and distribution free two sample methods. Journal of the American Statistical Association 101, 1107–1118.

47 Guha, S. and S.N. MacEachern (2006). Generalized post-stratification and importance sampling for subsampled Markov chain Monte Carlo estimation. Journal of the American Statistical Association 101, 1175–1184.

48 MacEachern, S.N. (2007). Discussion of "Bayesian nonparametric modelling for spatial data using the Dirichlet process" by A.E. Gelfand, M. Guindani and S. Petrone, in Bayesian Statistics 8, Proceedings of the Eighth Valencia International Meeting 196–198.

49 Ozturk, O. and MacEachern, S.N. (2007). Order restricted randomized designs and two-sample inference. Environmental and Ecological Statistics 14, 365–381.

50 MacEachern, S.N. (2007). Discussion of "Splitting and merging components of a nonconjugate Dirichlet process mixture model", by S. Jain and R. Neal. Bayesian Analysis 2, 483–494.

51 MacEachern, S.N., Rao, Y. and Wu, C. (2007). A robust-likelihood CUSUM chart. Journal of the American Statistical Association 102, 1440–1447.

52 Du, J. and MacEachern, S.N. (2008). Judgement post-stratification for designed experiments. Biometrics 64, 345–354.

53 Duncan, K.A. and MacEachern, S.N. (2008). Nonparametric Bayesian modelling of item response curves. Statistical Modelling 8, 41–66.

54 Ruan, S., MacEachern, S.N., Otter, T. and Dean, A.M. (2008). The dependent Poisson race model and modeling dependence in conjoint choice experiments. Psychometrika 73, 261–288.

55 MacEachern, S.N. (2008). Discussion of "The nested Dirichlet process" by A.E. Gelfand, D.B. Dunson and A. Rodriguez. Journal of the American Statistical Association 103, 1149–1151.

56 Otter, T., Johnson, J., Rieskamp, J., Allenby, G.M., Brazell, J., Diedrich, A., Hutchinson, W., MacEachern, S.N., Ruan, S., and Townsend, J. (2008). Sequential sampling models of choice: some recent advances. Marketing Letters 19, 255–267.

57 Epifani, I., MacEachern, S.N., and M. Peruggia (2008). Case-deletion importance sampling estimators: Central limit theorems and related results. Electronic Journal of Statistics 2, 774–806.

58 Chen, H., Stasny, E.A., Wolfe, D.A., and S.N. MacEachern (2009). Unbalanced ranked set sampling for estimating a population proportion under imperfect rankings. Communications in Statistics: Theory and Methods 38, 2116–2125.

59 Bush, C.A., J. Lee, and S.N. MacEachern (2010). Minimally informative prior distributions for nonparametric Bayesian analysis. Journal of the Royal Statistical Society, Series B 72, 253–268.

60 Westman, J.A., A.K. Ferketich, R.M. Kauffman, S.N. MacEachern, J.R. Wilkins III, P.P. Wilcox, R.T. Pilarski, R. Nagy, S. Lemeshow, A. de la Chapelle, and C.D. Bloomfield (2010). Low cancer incidence rates in Ohio Amish. Cancer Causes and Control 21, 69–75.

61 Lee, J. and S.N. MacEachern (2011). Consistency of Bayes estimators without the assumption that the model is correct. Journal of Statistical Planning and Inference 141, 748–757.

62 MacEachern, S.N. and S. Guha (2011). Parametric and semiparametric hypotheses in the linear model. Canadian Journal of Statistics 39, 165–180.

63 Yu, Q., MacEachern, S.N., and M. Peruggia (2011). Bayesian synthesis: combining subjective analyses, with application to ozone data. Annals of Applied Statistics 5, 1678–1698.

64 Hans, C., Craigmile, P.F., Lee, J., MacEachern, S.N., and X. Xu (2012). Covariance decompositions for accurate computation in Bayesian scale-usage models. Journal of Computational and Graphical Statistics 21, 538–557.

65 Paul, R., L.M. Berliner, and S.N. MacEachern (2012). Assessing convergence and mixing of MCMC implementations via stratification. Journal of Computational and Graphical Statistics 21, 693–712.

66 Lee, Y., MacEachern, S.N., and Y. Jung (2012). Regularization of case-specific parameters for robustness and efficiency. Statistical Science 27, 350–372.

67 Duncan, K.A., and S.N. MacEachern (2012). Nonparametric Bayesian modelling of item response curves with a three parameter logistic prior mean. In "Current Topics in the Theory and Application of Latent Variable Models" M.C. Edwards and R.C. MacCallum (eds.), Taylor & Francis.

68 Ozturk, O., and S.N. MacEachern (2013). Inference based on general linear models for order restricted randomization. Communications in Statistics: Theory and Methods 42, 3243–3266.

69 Yu, Q., MacEachern, S.N., and Peruggia, M. (2013). Clustered Bayesian model averaging. Bayesian Analysis 8, 883–908.

70 Williamson, S.A., MacEachern, S.N., and Xing, E. (2013). Restricting exchangeable nonparametric distributions. NIPS 2013, 2598–2606.

71 Lee, J., and MacEachern, S.N., Lu, Y., and Mills, G.B. (2014). Local mass preserving prior distributions for nonparametric Bayesian models. Bayesian Analysis 9, 307–330.

72 MacEachern, S.N. (2014). Comment on Finegold and Drton's "Robust Bayesian graphical modeling using Dirichlet t-distributions". Bayesian Analysis 9, 574–576.

73 Kadane, J., and MacEachern, S.N. (2014). Toward rational social decisions: a review and some results. Bayesian Analysis 9, 685–698.

74 Lee, J., and MacEachern, S.N. (2014). Inference functions in high dimensional Bayesian inference. Statistics and Its Interface 7, 477–486.

75 Xu, Z., MacEachern, S.N., and Xu, X. (2015). Modeling time series with a nonparametric Bayesian model. IEEE- Transactions on Pattern Analysis and Machine Intelligence 37, 372–382.

76 Kim, H., and MacEachern, S.N. (2015). The generalized multiset sampler. Journal of Computational and Graphical Statistics 24, 1134–1154.

77 Jung, Y., Lee, Y., and MacEachern, S.N. (2015). Efficient quantile regression for heteroscedastic models. Journal of Statistical Computation and Simulation 85, 2548–2568.

78 Houpt, J.W., MacEachern, S.N., Peruggia, M., Townsend, J.T., Van Zandt, T. (2016). Semiparametric Bayesian approaches to systems factorial. Journal of Mathematical Psychology 75, 68–85.

79 Som, A., Hans, C.M., and MacEachern, S.N. (2016). A conditional Lindley paradox in Bayesian linear models. Biometrika 103, 993–999.

80 MacEachern, S.N. (2016). Nonparametric Bayesian methods: a gentle introduction and overview. Communications for Statistical Applications and Methods 6, 445–466.

81 Strait, J., Kurtek, S., Bartha, E., and MacEachern, S.N. (2017). Landmark-constrained elastic shape analysis of planar curves. Journal of the American Statistical Association 112, 521–533.

82 Thomas, Z., Peruggia, M., and MacEachern, S.N. (2018). Reconciling curvature and importance sampling based procedures for summarizing case influence in Bayesian models. Journal of the American Statistical Association 113, 1669–1683.

83 Hans, E.C., Pinard, C., van Nimwegen, S.A., Kirpensteijn, J., Singh, A., MacEachern, S., Naber, S., and Dudley, R.M. (2018). Effect of surgical site infection on survival after limb amputation in the curative-intent treatment of canine appendicular osteosarcoma: a Veterinary Society of Surgical Oncology retrospective study. Veterinary Surgery 47, E88–E96.

84 Dotson, J.P., Howell, J.R., Brazell, J.D., Otter, T., Lenk, P.J., MacEachern, S.N., and Allenby, G.M. (2018). A probit model with structured covariance for similarity effects and source of volume calculations. Journal of Marketing Research 55, 35–47.

85 Strait, J., Kurtek, S., and MacEachern, S.N. (2018). Locally-weighted elastic registration of planar curves. International Workshop on DIFF-CVML at IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 358–366.

86 Xu, X., Lu, P., MacEachern, S.N., and Xu, R. (2019). Calibrated Bayes factors for model comparison. Journal of Statistical Computation and Simulation 89, 591–614.

87 Yin, J., Craigmile, P.F., Xu, X., and MacEachern, S.N. (2019). Shape-constrained semiparametric additive stochastic volatility models. Statistical Theory and Related Fields 3, 71–82.

88 MacEachern, S.N. and Van Zandt, T.V. (2019). Preregistration of modeling exercises may not be useful. Computational Brain & Behavior 2, 179–182. https://doi.org/10.1007/s42113-019-00038-x.

89 Lee, J., and MacEachern, S.N. (2020). A new proof of the stick-breaking representation of Dirichlet processes. Journal of the Korean Statistical Society 49, 389–394. https://doi.org/10.1007/s42952-019-00008-w.

90 Jung, Y., MacEachern, S.N., and Kim, H.J. (2020). Modified check loss for efficient estimation via model selection in quantile regression. Journal of Applied Statistics. https://doi.org/10.1080/02664763.2020.1753023.

91 Gory, J.J., Craigmile, P.F., and MacEachern, S.N. (2021). A class of generalized linear mixed models adjusted for marginal interpretability. Statistics in Medicine 40, 427–440. https://doi.org/10.1002/sim.8782

92 Cho, M.H., Kurtek, S. and MacEachern, S.N. (2021). Aggregated pairwise classification of elastic planar shapes. Annals of Applied Statistics 15, 619–637. https://doi.org/10.1214/21-AOAS1452.

93 Lewis, J.R., MacEachern, S.N., and Lee, Y. (2021). Bayesian restricted likelihood methods: Conditioning on insufficient statistics in Bayesian regression (with discussion and rejoinder). Bayesian Analysis 16, 1393-1462. https://doi.org/10.1214/21-BA1257.

94 Quintana, F., Mueller, P., Jara, A., and MacEachern, S.N. (2022). The dependent Dirichlet process and related models. Statistical Science 37, 24–41. https://doi.org/10.1214/20-STS819.

95 MacEachern, S.N. and Kim, J. (2022). Predictive modelling and judgement post-stratification, in "Recent Advances in Sampling Methods and Educational Statistics, In Honor of S. Lynne Stokes", H.K.T.Ng, D.F. Heitjan (eds.), Springer: 3–20

96 Sinnott, J.A., MacEachern, S.N., and Peruggia, M. (2022). Rediscovering a little known fact about the t-test and the F-test: algebraic, geometric, distributional and graphical considerations. Statistica 82, 79–96. https://doi.org/10.6092/issn.1973-2201/13560.

97 Miyawaki, K. and MacEachern, S.N. (2023). Economic variable selection. Canadian Journal of Statistics 51, 19–37. https://doi.org/10.1002/cjs.11675.

98 MacEachern, S.N. and Lee, J. (2023). Invited discussion of "Evaluating sensitivity to the stick-breaking prior in Bayesian nonparametrics" by Giordano, Liu, Jordan and Broderick. Bayesian Analysis 18, 321–324. https://doi.org/10.1214/22-BA1309.

99 Xu, X., MacEachern, S.N., and Lu, B. (2023). Bridging the design and modeling of causal inference: A Bayesian nonparametric perspective. Observational Studies 9, 119–124. doi:10.1353/obs.2023.0012

100 Kim, E., MacEachern, S.N., and Peruggia, M. (2023). Empirical likelihood for the analysis of experimental designs. Journal of Nonparametric Statistics, to appear.

Refereed Abstracts

A1 Westman, J.A., MacEachern, S.N., Ferketich, A., Lemeshow, S., Pilarski, R., Nagy, R., de la Chapelle, A., and C.D. Bloomfield (2003). Low Cancer Incidence Rates in Ohio Amish. American Journal of Human Genetics 73, 1186.

A2 MacEachern, S.N., Ferketich, A.K., Lemeshow, S., Shen, L., Westman, J., de la Chapelle, A., and C.D. Bloomfield (2003). Estimating Incidence Rates Using Pedigree Sampling. American Journal of Epidemiology 157, Suppl. S, 215.

A3 Ferketich, A.K., Westman, J.A., MacEachern, S.N., Lemeshow, S., Wilkins, J.R., de la Chapelle, A., and C.D. Bloomfield (2004). Barriers to Sampling an Isolated Population: The Ohio State University Amish Population Study Experience. American Journal of Epidemiology 159, Suppl. S., S27–S27.

Book Reviews

R1 MacEachern, S.N. (1997). Review of "Kendall's Advanced Theory of Statistics, Volume 2B: Bayesian Inference", by A. O'Hagan. In Statistics in Medicine.

R2 MacEachern, S.N. (2000). Review of "Monte Carlo Methods in Bayesian Computation", by M-H. Chen, Q-M. Shao and J. Ibrahim. SIAM Review 43, 205-207.

R3 MacEachern, S.N. (2006). Review of "Introduction to Statistical Thought", by M. Lavine. In the Journal of the American Statistical Association.

Significant Non-Refereed Publications

NR1 Stasny, E.A., MacEachern, S.N., and Yamashita, D. (1992). "Hierarchical models for response to the Business and Economic Censuses", in the American Statistical Association 1992 Proceedings of the Section on Survey Research Methods.

NR2 MacEachern, S.N. (1999). "Dependent nonparametric processes", in the American Statistical Association 1999 Proceedings of the Section on Bayesian Statistics.

NR3 MacEachern, S.N. (2000). Dependent Dirichlet Processes, Technical Report, Ohio State University.

NR4 MacEachern, S.N., Kottas, A., and Gelfand, A.E. (2001). "Spatial nonparametric Bayesian models", in the American Statistical Association 2001 Proceedings of the Section on Bayesian Statistics.

NR5 Lewis, J., Lee, Y., and MacEachern, S.N. (2012). "Robust inference via the blended paradigm", in the American Statistical Association 2012 Proceedings.

GRANT FUNDING

1988-89 Ohio State Seed Grant Award.
"Efficient Adaptive Designs for Determining a Quantal Response Distribution."

1989-90 National Science Foundation.
"Bayesian Design and Analysis, Stochastic Optimization, and File-Merging Methodology", with Prem Goel, Mark Berliner, and Bill Notz.

1990 Bureau of Justice Statistics, U.S. Department of Justice, and Committee on Law and Justice Statistics of the American Statistical Association.
Invited participant in the Third Workshop on the Design and Use of the National Crime Survey.

1990-91 Bureau of the Census.
"Nonresponse In Business Censuses and Surveys", with Elizabeth Stasny.

1991 Bureau of Justice Statistics, U.S. Department of Justice, and Committee on Law and Justice Statistics of the American Statistical Association.
Invited participant in the Follow-up to the Third Workshop on the Design and Use of the National Crime Survey.

1991-93 Bureau of the Census.
"Nonresponse In Business Censuses and Surveys", with Elizabeth Stasny.

2000-2004 National Science Foundation.
"Nonparametric Bayesian Modelling".

2004-2009 National Science Foundation.
"Hierarchical Bayesian Methods in Psychology of Consumer Behavior", with Michael Browne, Angela Dean, Mario Peruggia, Greg Allenby, Thomas Otter and Trish Van Zandt.

2004-2007 National Security Agency.
"Ranked Set Sampling: Theory and Methods", with Omer Ozturk.

2006-2007 National Security Agency.
"9th North American Meeting of New Researchers in Statistics and Probability", with Peter Craigmile.

2006-2010 National Science Foundation.
"Statistical Inference under Subjective and Not-Fully-Quantifiable Information on Experimental Units", with Omer Ozturk.

2010-2012 National Security Agency.
"Blended Paradigm Inference with Application to Regression", with Yoonkyung Lee.

2010-2013 National Science Foundation.
"Knowledge-Driven Bayesian Regression", with Christopher Hans.

2011-2012 Initiative for Population Research
(OSU, subcontract on a grant from the National Science Foundation)
"Calibrated Bayes factors for model choice and predictive model averaging", with Xinyi Xu.

2011-2012 Nationwide Center for Advanced Customer Insights.
"Robust and Relevant Model Evaluation", with Yoonkyung Lee.

2012-2015 National Science Foundation.
"Robust and Relevant Model Evaluation: Principles and Techniques for Handling Weak Prior Information and Contaminated Data", with Yoonkyung Lee and Xinyi Xu.

2016-2019 National Science Foundation.
"Robust Bayesian analysis with model uncertainty for massive datasets", with Xinyi Xu.

2019-2023 National Science Foundation.
"Bayesian empirical likelihood: Data analysis tools with applications in econometrics, with Catherine Forbes and Mario Peruggia.

2020-2023 National Science Foundation.
"Robust Bayesian semiparametric inference of heterogeneous causal effects in observational studies", with Xinyi Xu and Bo Lu.

Travel and/or living expenses funded on travel grants in 1989, 1991, 1994, 1995, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2007, 2009, 2010, 2013, 2016, 2019.

PROFESSIONAL SERVICE – EXTERNAL

Editorial Work

Associate Editor for Technometrics, 2001 - 2004
Associate Editor for The American Statistician, 2001 - 2016
Associate Editor for Bayesian Analysis, 2004 - 2018
Associate Editor for Statistica Sinica, 2005 - 2008

Associate Editor for the Journal of Computational and Graphical Statistics, 2008-2012
Associate Editor for the Journal of the American Statistical Association, 2012 - 2015
Member, Search Committee for the Editor of The American Statistician (2008, 2010)

Referee for

AISTATS 2010
Annals of Applied Statistics
Annals of the Institute of Statistical Mathematics
Biometrics
Biostatistics
Communications in Statistics
Computers & Industrial Engineering
Hacettepe Journal of Mathematics and Statistics
Journal of Biological Statistics
Journal of Computational and Graphical Statistics
Journal of Econometrics
Journal of Multivariate Analysis
Journal of Statistical Computation and Simulation
Journal of Time Series Analysis
Management Science
Nonparametric Statistics
Proc. of ISBA 2000
Psychometrika
SIAM Journal on Applications in Mathematics
Statistical Science
Technometrics
American Statistician
Annals of Statistics
Bayesian Analysis
Biometrika
Canadian Journal of Statistics
Computational Statistics and Data Analysis
Electronic Journal of Statistics
Journal of American Statistical Association
Journal of Business and Economic Statistics
Journal of Educational Statistics
Journal of Mathematical Psychology
Journal of the Royal Statistical Society, series B
Journal of Statistical Planning and Inference
Lifetime Data Analysis
METRON
Practical Nonpar. and Semipar. Bayesian Statistics
Proc. of the Valencia conf. on Bayesian Statistics
2nd International Workshop on Bayesian Statistics
Statistica Sinica
Statistics in Medicine

Reviewer of Proposals for

Arkansas Science & Technology Authority
Netherlands Organisation for Scientific Research
NSERC (roughly, the Canadian version of NSF)
Research Grant Council of Hong Kong (roughly the Hong Kong version of NSF)
Oak Ridge Associated Universities
National Science Foundation
North Atlantic Treaty Organization
FONDECEYT (roughly, the Chilean version of NSF)

Service to Professional Societies

Multiple Societies

Program Chair for 2012 Joint Statistical Meetings, sponsored by the
American Statistical Association
International Biometric Society
International Chinese Statistical Association
International Indian Statistical Association
Institute for Mathematical Statistics

Statistical Society of Canada

American Statistical Association

Member, Committee on Meetings (2011 - 2013)

Chair Elect/Chair/Past Chair, Caucus of Academic Representatives (2019-22)

Columbus Chapter
- Chapter Representative (1989 - 1993)
- Chapter President (1992 - 1993)
- Judge for ASA Statistical Analysis Award at Ohio Science Day (1989-1990; 1992-1993; 1995-1997)
- Inaugural Past President for reformed chapter (2018)

Participant, Statistics Visiting Lecture Program (COPSS sponsored)

Section on Bayesian Statistical Science
- Member, Savage Award Committee (2001, 2009, 2010)
- Program Chair (2006)
- Chair, Committee to Nominate Fellows (2010-2011)

Section on Graphics
- Program Chair (2009)

Section on Nonparametric Statistics
- Program Chair (for 2011 JSM)

- Journal of Nonparametric Statistics Best Paper Award Committee (2012, 2013)

Ad-hoc committees
- Member, Committee on Ratings of Statistics and Biostatistics Departments
- Member, Committee on Articulation Agreement on Data Science Courses

International Society for Bayesian Analysis

Member, Nominating Committee (2003)
Member, ISBA Board (2006-2008)
President, Nonparametric Section (2013 - 2014)
President (2016) (President-Elect 2015; Past President 2017)
Member, Named Lecture Committee (2021)
Member, Committee on Fellows (2021-current)
Chair, UTC- division committee, inaugural Blackwell-Rosenbluth Award (2021)

Conference Organization

Local co-organizer, SBIES Conference on Statistics, with emphasis on marketing and nonparametric Bayesian analysis (1997)

Member, Scientific Committee, First Midwest Statistics Research Colloquium (2008)
Member, Scientific Committee, Second Midwest Statistics Research Colloquium (2009)
Chair, Scientific Committee, Third Midwest Statistics Research Colloquium (2010)
Member, Local Program Committee, Conference on Nonparametric Statistics and Statistical Learning (2010)
Chair, Scientific Committee, Fourth Midwest Statistics Research Colloquium (2011)
Organizer, Bayesian Causal Inference Workshop, (2019)
Member, Scientific Committee, Bayesian Nonparametrics 12 (2019)
Chair, Scientific Committee, Bayesian Nonparametrics 13 (2022)
Organizer, chair and/or discussant for numerous sessions of talks at many conferences, most notably through the IMS, the ASA, and the Biometric Society.

Service to Other Universities

External review, Department of Statistics, Texas A&M University, 2015
External review, Department of Statistics, University of Illinois, 2017
Chair, External review committee, Department of Statistics, University of Nebraska - Lincoln, 2021
Review of proposal to reorganize graduate program in Statistics, University of California, Santa Cruz, 2018
External review, Statistics and Data Science program, University of Arkansas, 2021
Chair, External review committee, Department of Statistics, Texas A&M University, 2022
Member, External Advisory Board, School of Statistics, University of Minnesota, 2018-current
Member, External review committee, Applied Mathematics Program, Air Force institute of Technology (AFIT

EDUCATION

I have taught more than 25 different courses at The Ohio State University, ranging from low level, introductory courses to Ph.D. seminars. Additionally, I have served as the co-ordinator for parallel sections of our large introductory course, and as faculty advisor for Teaching Assistants who have taught our introductory courses.

Current and past Ph.D. Students

Christopher A. Bush, 1994, co-advisor with Mark Berliner
Semi-parametric Bayesian linear models
Craig A. Cooley, 1996
Bayesian and nonparametric models in the classification problem
Ling (Amy) Qin, 1998
Nonparametric Bayesian models for item response data
Iyue Sung, 2001
Importance sampling kernel density estimation
Subharup Guha, 2004, co-advisor with Mario Peruggia
Benchmark estimation for Markov chain Monte Carlo samplers
Kristin (Blenk) Duncan, 2004
Case and covariate influence: implications for model assessment
Juan Du, 2006
Judgement post-stratification for designed experiments

Qingzhao Yu, 2006, co-advisor with Mario Peruggia
Bayesian model synthesis
Shiling Ruan, 2007, co-advisor with Angela Dean
Poisson race models for conjoint choice analysis: Theory and applications
Zhen Wang, 2009
Semiparametric Bayesian models extending weighted least squares
Yoonsuh Jung, co-advisor with Yoonkyung Lee, 2010
Case-specific regularization methods
Juhee Lee, 2010
Robust statistical modeling through nonparametric Bayesian methods
William Darnieder, 2011
Bayesian methods for data-dependent priors
Pingbo Lu, co-advisor with Xinyi Xu, 2012
Calibrated Bayes factors for model selection and model averaging
Hang Joon Kim, 2012
The generalized multiset sampler: theory and its application
Agniva Som, co-advisor with Chris Hans, 2014
Paradoxes and priors in Bayesian regression
John Lewis, co-advisor with Yoonkyung Lee, 2014
Bayesian restricted likelihood methods
Jingjing Yan, co-advisor with Eloise Kaizar, 2014
Hierarchical random-effect meta-analysis of binary events investigating the relationship between treatment effect and underlying risk
Zhiguang Xu, co-advisor with Xinyi Xu, 2014
Modeling non-Gaussian time-correlated data using nonparametric Bayesian method
Rex Hu, co-advisor with Joseph Verducci, 2015
Initializing the EM algorithm for data clustering and subpopulation detection
Jeff Gory, co-advisor with Peter Craigmile, 2017
Marginally interpretable generalized linear mixed models
Jieyi Jiang, co-advisor with Yoonkyung Lee, 2017
Realistic predictive risk: The role of penalty and covariate diffustion in model selection
Andrew Bean, co-advisor wtih Xinyi Xu, 2017
Transormations and Bayesian estimation of skewed and heavy-tailed densities
Meng Li, 2017
Simultaneous inference procedures in the presence of heteroscedasticity
Jiayin Zheng, co-advisor with Xinyi Xu, 2018
Calibrated Bayes factor and Bayesian model averaging
Min Ho Cho, co-advisor with Sebastian Kurtek, 2020
Aggregated pairwise classification and other applications for elastic shape analysis
Hengrui Luo, co-advisor with Mario Peruggia, 2020
Lower dimensional topological information
Jiae Kim, parallel advisor with Yoonkyung Lee, 2020
Nonlinear generalizations of linear discriminant analysis: the geometry of the common variance space and kernel discriminant analysis

Statistics and Biostatistics Ph.D. Committees

Students who have completed the Ph.D.

Bob Abel	Roxana Alexandridis	Roger Bilisoly	Jenny Brynjarsdottir
Di Cao	Haiying Chen	Zhenhuan Cui	Jeff Draskoci-Johnson
Lin Fei	Jesse Frey	Jingguo Gao	Nader Gemayel
Robert George	Beomseuk Hwang	Yanan Jia	Lie Jane Kao
Yongku Kim	Jessica Kohlschmidt	Joseph Kosler	Deborah Kunkel
Eric Lam	Dongmei Li	Scott Linder	Liang Liu
Sijin Liu	Shannon Markiewicz	Nancy McMillan	Brian Millen
Satoshi Miyata	Xueliang Pan	D.K. Park	Ragib Paul
Lira Pi	Youlan Rao	Catherine Scipione	Anthony Sgambellone
Shan Shi	Zachary Skrivanek	Michael Sonksen	David Spade
Christopher Sroka	Gregory Stark	Justin Strait	Yiping Sun
Junyang Wang	Min-Hui Wang	Tao Wang	Xiaomu Wang
Lai Wei	Brian Williams	Haiyan Xu	Ruoxi Xu
Darryl Yamashita	Jiangyong Yin	Shen Zhang	Xiuyun Zhang
Shangang Zhou	Yuangen Zhu		

Students who have completed all work for the Ph.D. except the dissertation:

John Honaker	Cheryl LeSaint

Outside Committees

Edwin R. Etter	Accounting and Management Information Systems
Omer Demirkaya	Biomedical Engineering
Duran Yetkinler	Biomedical Engineering
Ebru Demirayak	City and Regional Planning
Tae-Kyung Kim	City and Regional Planning
Justin Eldrige	Computer Science
Yi Ma	Computer Systems Engineering
Matt Greene	Evolutionary Ecology and Organismal Biology
Paul Cotellesso	Industrial Engineering
Jaejin Hwang	Industrial Engineering
Lin Yang	Industrial Engineering
Wenfang Zhang	Industrial Engineering
Zhenhuan Sui	Industrial Systems Engineering
Jing Li	Integrated Systems Engineering
Hui Zhong	Integrated Systems Engineering
Brenden Bishop	Psychology
Casey Codd	Psychology
Hairong Gu	Psychology
Eunhee Keum	Psychology
Longjuan Liang	Psychology
Hao Wu	Psychology

External Examiner for the Ph.D.

George Tomlinson	Department of Statistics, University of Toronto Advisor: Michael Escobar
Babak Shahbaba	Department of Public Health Sciences, Unversity of Toronto Advisor: Radford Neal
Yun Cao	Department of Statistics, University of Toronto Advisor: Michael Evans
Sinead Williamson	Department of Engineering, University of Cambridge Advisor: Zubin Ghahramani
Jeffrey Miller	Applied Mathematics, Brown University Advisors: Matthew Harrison and Stuart Geman
Konstantina Palla	Department of Engineering, University of Cambridge Advisor: Zubin Ghahramani