

HAL S. STERN

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Education:

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| B.S. | Mathematics | 1981 | Massachusetts Institute of Technology, Cambridge, MA |
| M.S. | Statistics | 1985 | Stanford University, Stanford, CA |
| Ph.D. | Statistics | 1987 | Stanford University, Stanford, CA |

Professional Experience:

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| 2020 – present | Provost & Executive Vice Chancellor, University of California, Irvine (interim 3/20-4/21) |
| 2019 – 2020 | Vice Provost for Academic Planning, University of California, Irvine |
| 2018—present | Chancellor’s Professor, Department of Statistics, University of California, Irvine, CA |
| 2016 – 2018 | Professor, Department of Statistics, University of California, Irvine, CA |
| 2010 – 2016 | Ted and Janice Smith Family Foundation Dean and Professor of Statistics, Donald Bren School of Information and Computer Sciences, UC Irvine |
| 2002 – 2010 | Founding Chair and Professor, Department of Statistics, University of California, Irvine, CA (Acting Dean, Donald Bren School of ICS – Oct-Dec 2007, Jan-Apr 2009) |
| 2001 – 2002 | Laurence H. Baker Chair in Biological Statistics, Iowa State University, Ames, IA |
| 2000 – 2002 | Interim Director, Laurence H. Baker Center for Bioinformatics and Biological Statistics, Iowa State University, Ames, IA |
| 1997 – 2002 | Professor of Statistics, Iowa State University, Ames, IA |
| 1994 – 1997 | Associate Professor of Statistics, Iowa State University, Ames, IA |
| 1991 – 1994 | Associate Professor of Statistics, Harvard University, Cambridge, MA |
| 1987 – 1991 | Assistant Professor of Statistics, Harvard University, Cambridge, MA |
| 1983 – 1987 | Teaching Asst. / Research Asst., Department of Statistics, Stanford University, Stanford, CA |
| 1981 – 1983 | Research Associate, Commodities Corporation, Princeton, NJ |

Honors and Awards:

Distinguished Professor, UC Irvine, 2024
Founders Award, American Statistical Association, 2022
(The Founders Award recognizes members who have rendered distinguished service to the association)
Fellow, International Society for Bayesian Analysis, 2020
Statistical Partnerships Among Academe, Industry and Government (SPAIG) Award (Center for Statistics and Applications in Forensic Evidence), American Statistical Association, 2018
Chancellor’s Professor, UC Irvine, 2018
Interdisciplinary Team Science Award (Conte Center at UCI), ICTS, UC Irvine, 2018
Fellow, American Association for the Advancement of Science, 2016
DeGroot Prize, International Society for Bayesian Analysis – for Bayesian Data Analysis (3rd edition), 2016
Fellow, Institute of Mathematical Statistics, 2011

National Associate of the National Research Council, 2011
 Commencement Speaker, Department of Statistics, University of California, Los Angeles, 2011
 Teaching Excellence Award (Bren School of ICS), Teaching, Learning and Technology Center, UCI, 2007
 Commencement Speaker, Department of Statistics, University of California, Berkeley, 2005
 Buckingham Scholar-In-Residence, Miami University, Oxford, OH, September 2001
 Laurence H. Baker Chair in Biological Statistics, Iowa State University, 2001-2002
 Nominated as Outstanding Faculty of the Year, Iowa State University, 2000
 Statistics in Sports Award, American Statistical Association Section on Statistics in Sport, 1999
 Fellow, American Statistical Association, 1998
 Letter of Instructional Commendation, Technical Education Program, GM, Fall 1996
 Alan Abrams Scholarship, Stanford University, 1983

Professional Activities:

2024 – present Chair, Committee on Cybercrime Classification and Measurement, National Research Council, National Academies of Sciences, Engineering and Medicine
 2023 – present Member, Steering Committee, Chief Academic Officer’s Group, Association of American Universities (AAU)
 2023 – present Member, Committee on Law and Justice Statistics, American Statistical Association (ASA)
 2022 – 2023 Member, Executive Committee, Council on Academic Affairs (CAA), Association of Public and Land-Grant Universities (APLU)
 2020 Member, Committee on the Future of the National Institute of Statistical Science
 2020 Member, External Review Committee, Department of Statistics and Applied Probability, University of California, Santa Barbara
 2019 Member, American Statistical Association Task Force on the Future of Chance Magazine
 2019 – 2023 Scientific Committee, 11th International Conference on Forensic Inference and Statistics (ICFIS 2021), Lund, Sweden
 2019 – present Associate Editor, *Law, Probability and Risk*
 2019 – 2021 Associate Editor, *Harvard Data Science Review*
 2018 – 2022 Editorial Committee, *Annual Review of Statistics and Its Application*
 2018 – 2019 Member, Bitemark Steering Committee to Organize 2019 CSAFE Bitemark Thinkshop
 2017 – 2019 Chair, Section U (Statistics) of the American Association for the Advancement of Science (chair-elect 2017; chair 2018; retiring chair 2019)
 2017 – 2018 Member, National Academy of Sciences, Engineering and Medicine Standing Committee To Assist FMCSA in Developing New Motor Carrier Safety Measurement System
 2017 Report Review Coordinator, National Research Council (Improving Motor Carrier Safety Measurement)
 2017 External Reviewer, MS Program, Department of Mathematical Sciences, University of Texas, El-Paso, TX
 2016 Member, National Academy of Sciences Committee on Strengthening the Federal Motor Carrier Safety Administration Research and Technology Program
 2016 Member External Review Committee, Department of Statistics, University of Pennsylvania, Philadelphia, PA
 2015 – 2020 Member, Board of Trustees (Executive Committee), National Institute of Statistical Science, Raleigh, NC
 2015 Member, National Academy of Sciences Committee on Strengthening Forensic Science at the National Institute of Justice
 2015 – 2017 Chair, American Statistical Association (ASA) Committee on Publications
 2015 Chair, External Review Committee, Department of Statistics, University of Pittsburgh, PA
 2015 Chair, Editor Search Committee, Journal of the American Statistical Association

2014 – 2020 Member, Scientific Area Committee for Physics/Pattern Forensic Evidence, Organization of Scientific Area Committees, National Institute of Standards and Technology (NIST)

2014 – 2017 Member, Advisory Committee for Arnold Foundation funded “Quality and Gap Analysis of the Forensic Science Literature”

2014 Chair, External Review Committee, College of Natural Sciences, University of Hawaii-Manoa, Honolulu, HI

2013 – 2016 Chair, National Academy of Sciences Panel on Research Methodologies for Understanding Driver Fatigue

2013 – 2015 Member, Mitchell Prize Committee, International Society for Bayesian Analysis

2013 Member, Committee of Visitors, Social and Economics Sciences Division, National Science Foundation

2012 – present Mentor, NISS-ASA Writing Workshop (2012, 2013, 2015, 2018, 2019)

2012 – 2022 Member (Chair 2019, 2020), Advisory Committee on Forensic Statistics, American Statistical Association (was one of three founding members in 2012)

2011 Chair, Charter Review Committee, Section on Bayesian Statistical Science, American Statistical Association

2010 Chair, National Academy of Sciences Committee on National Statistics Steering Committee for a Workshop on the Future of Federal Household Surveys

2010 Committee to Visit the Dept. of Applied Mathematics and Statistics, University of California, Santa Cruz, CA

2010 – 2012 Committee on Publications, American Statistical Association

2010 – 2012 Editor, Applications & Case Studies and Coordinating Editor, *Journal of the American Statistical Association*

2009 – 2010 Member, National Academy of Sciences Panel on Missing Data in Clinical Trials

2008 – 2011 Member, NIST-NIJ Expert Working Group on Human Factors in Latent Print Analysis, National Institute of Standards and Technology and National Institute of Justice

2008 – 2014 Member, Committee on National Statistics (CNSTAT), National Academies of Science

2008 – 2009 Associate Editor, *Annals of Applied Statistics*

2008 – 2010 Member (Chair in 2010), Fisher Lecture Committee, Council of Presidents of Statistical Societies

2007 – 2008 Chair, National Academy of Sciences Panel on ACS Use for NSF Survey of College Graduates

2007 Member, National Academy of Science Panel to Review the Information Technology Laboratory of the National Institute of Standards and Technology (NIST)

2005 Committee to Visit the Department of Statistics, Indiana University

2005 Organizing Committee, Better Policy through Statistics: A Symposium in Honor of John Rolph, Costa Mesa, CA

2005 Organizing Committee, Genetics and Epidemiology Research Institute Symposium, Irvine, CA

2005 – 2009 Associate Editor, *Bayesian Analysis*

2004 – 2006 Member, National Academy of Sciences Panel on American Community Survey (ACS)

2004 Organizing Committee, Decision, Sports and Statistics Conference, Irvine, CA

2004 – 2006 Committee to Visit the Department of Statistics, Harvard University

2004 Chair, American Statistical Association Section on Bayesian Statistical Science

2003 – 2004 Member, Scientific Committee, ISBA 2004 Meeting in Vina del Mar, Chile

2002 – 2003 Member, Savage Thesis Award Committee (Section on Bayesian Statistical Science SBSS)

2002 – 2003 Member, National Academy of Sciences Panel on Evaluation of the Interim Armored Vehicle

2002 – 2003 Member, National Science Foundation, MMS Review Panel member

2002 Organizing/Program Committee Chair, April 2002 Joint ISU/Iowa Bioinformatics Workshop

2002 Chair, ISBA Selected Contributed Papers, Valencia 7 Conference on Bayesian Statistics

2002 – present Advisory Editor, *Chance*

2001 – 2002 Chair, American Statistical Association Task Force on the Future of Chance

2001 Chair, American Statistical Association Section on Statistics in Sports

2001 Member, Nominating Committee, International Society for Bayesian Analysis (ISBA)

2000 National Institutes of Health, SNEM-5 Review Panel member

1999 – 2001 Editor, *Chance* (publication of the American Statistical Association)

1999 National Science Foundation, SBER Infrastructure Panel reviewer
 1997 – 2001 Member, Committee on Publications, American Statistical Association
 1997 – 1998 Column Editor, "A Statistician Reads the Sports Pages", *Chance*
 1997 Member, Nominating Committee, Institute of Mathematical Statistics
 1993 – 1994 Associate Editor, Special Section on Statistics in Sports, *Journal of the American Statistical Association*
 1992 – 1998 Senior Associate Editor, *Chance*
 1992 Member, Local Arrangements Committee, 1992 Joint Statistical Meetings

Member: American Association for the Advancement of Science (Fellow, 2016)
 American Statistical Association (Fellow, 1998)
 Institute of Mathematical Statistics (Fellow, 2011)
 International Society for Bayesian Analysis (Fellow, 2020)

Referee/reviewer for funding agencies: National Science Foundation, National Security Agency, National Institutes of Health, National Institute of Justice, Oak Ridge National Laboratory

Referee/reviewer for publishers: National Academy of Sciences, National Institute of Standards and Technology, Oxford University Press

Referee/reviewer for conference: Sloan Sports Analytics Conference, American Association for the Advancement of Science

Referee/reviewer for journals: Science, Proceedings of the National Academy of Science (PNAS), Journal of the American Statistical Association (JASA), Biometrika, Journal of the Royal Statistical Society (JRSS Ser. B), Annals of Applied Statistics, Annals of Internal Medicine, Applied Statistics (JRSS Ser. C), Annual Review of Statistics and Its Application, Accident Analysis and Prevention, American Journal of Agricultural Economics, The American Statistician (TAS), Bayesian Analysis, Biometrics, Biostatistics, BMJ Open, Brain and Language, Journal of Business and Economic Statistics (JBES), Case Studies in Bayesian Statistics, Chance, Journal of Chemometrics, Journal of Clinical Epidemiology, Communications in Statistics, Journal of Chemometrics, Journal of Computational and Graphical Statistics, Computational Statistics and Data Analysis, Computers and Mathematics with Applications, Ecological Applications, Ecology, Journal of Educational and Behavioral Statistics (JEBS), Forensic Chemistry, Forensic Science International, International Journal of Biostatistics, Law Probability and Risk, Management Science, Mathematical Intelligencer, Nature Human Behavior, Naval Research Logistics, Journal of Neuroscience Methods, Journal of Official Statistics, Journal of Parallel and Distributed Computing, PLOS One, Population Research and Policy Review, Psychological Methods, Psychometrika, Journal of Quantitative Analysis in Sports, Journal of Regional Science, Journal of Research of NIST, Sankhya, Statistica Sinica, Journal of Statistical Planning and Inference, Statistical Science, Journal of Statistics Education, Statistics in Medicine (SIM), Sociological Methodology, Sociology Methods and Research, Statistical Modeling, Statistics in Biopharmaceutical Research, Statistics in Medicine, Technometrics, TEST, Journal of Theoretical Probability, Wiley Interdisciplinary Reviews in Computational Statistics.

Grants:

July 2021 – June 2024 California Initiative to Advance Precision Medicine (CIAPM)
 Title: Using Precision Medicine to Tackle the Impact of ACEs (including a Novel Actionable ACE) on Children's Neurodevelopment, \$3,000,000
 (Investigator, T. Baram, PI)

June 2020 – May 2025 National Institute of Standards and Technology (NIST)
 Title: Center of Excellence in Forensic Statistics, \$20,000,000
 (co-PI and PI of UC Irvine subcontract (\$4,000,000); A. Carriquiry, Iowa State, PI)

- June 2019 – May 2024 National Institutes of Mental Health – NIMH Conte Center (renewal)
 Title: Fragmented Early-Life Experiences, Aberrant Circuit Maturation, and Emotional Vulnerabilities, \$15,000,000
 (co-PI / Head of Biostatistics, Computation and Data Management Core, T. Baram, PI)
- Nov 2016 – May 2019 California Initiative to Advance Precision Medicine (CIAPM)
 Title: Precision Medicine for Early Prostate Cancer: Integrating Biological and Patient Complexity Variables to Predict Treatment Response, \$1,200,000
 (Senior Investigator; S. Greenfield, PI)
- June 2015 – May 2020 National Institute of Standards and Technology (NIST)
 Title: Center of Excellence in Forensic Statistics, \$20,000,000
 (co-PI and PI of UC Irvine subcontract (\$3,700,000); A. Carriquiry, PI)
- June 2013 – May 2018 National Institutes of Mental Health – NIMH Conte Center
 Title: Fragmented Early Life Environment and Cognitive and Emotional Vulnerabilities, \$10,000,000
 (co-PI / Head of Biostatistics, Computation and Date Management Core, T. Baram, PI)
- Sept 2010- Aug 2014 National Science Foundation (ATM)
 Title: Collaboration in Mathematical Geosciences (CMG): Enhanced EOF Representations and Time-varying Statistical Models for Climate Patterns, \$626,243
 (PI with G. Magnusdottir, Y. Yu as co-PIs)
- July 2010-June 2015 National Institutes of Health – NCRR
 Title: Irvine Institute for Clinical and Translational Science, \$20,000,000
 (Chair of Biostatistics, Ethics and Research Design Unit 2010-2011; D. Cooper, PI)
- Oct 2005-Sept 2010 National Institutes of Health – NCRR
 Title: Functional Imaging Research on Schizophrenia Testbed, \$24,300,000
 (Co-chair of Statistics Working Group with S. G. Potkin as P.I.)
- Sept 2005 – Aug 2009 National Science Foundation (ATM-0530926)
 Title: Collaboration in Mathematical Geosciences (CMG): Characterization of Inter-Tropical Convergence Zone (ITCZ) Dynamics and Breakdown Using Statistical Learning Methods and Satellite Data, \$618,180
 (Co-PI with G. Magnusdottir, P. Smyth)
- Sept 2004 - Aug 2007 National Institutes of Health – NCRR
 Title: Transdisciplinary Imaging Genetics Center, \$1,673,332
 (Co-Investigator with S.G. Potkin as P.I.)
- Sept 2004 – Aug 2007 Brigham and Women’s Hospital, Harvard
 Title: National Alliance for Medical Imaging, \$913,268 (subcontract of NIH award)
 (Co-Investigator with S. G. Potkin as P.I.)
- Sept 2001-Sept 2005 United States Dept. of Agriculture (USDA) – MGET Training Grant (Iowa State Univ.)
 Title: Computation Biology in Animal Agriculture, \$1,600,000
 (Co-PI with C. Tuggle, S. Carpenter, M. Nilsen-Hamilton)
- Sept 2000-June 2002 National Center for Health Statistics,
 Title: Small Area Estimates of U.S. Infant Mortality Using Bayesian Methods, \$37,691

- Oct 1998-June 2000 Department of Energy/FBI (Ames Laboratory),
Title: Statistical Treatment of Class Evidence, \$150,936.
(PI with A. Carriquiry, M. Daniels)
- July 1998-June 2001 National Institutes of Health,
Title: Disease Maps of Small Areas, \$70,936.
(co-PI with N. Cressie)
- July 1996-Mar 1998 Center for Transportation Research and Education, Iowa State Univ.
Title: Evaluation of Electronic Clearance on I-75, \$26,188. (subcontract)
- July 1996-June 1997 University Research Grant, Iowa State University,
Title: Inference in Longitudinal Studies with Missing Data, \$9,400.
- July 1994-June 1998 National Science Foundation, Division of Mathematical Sciences
Title: Data Analysis using Finite Mixture Models, \$116,000. (co-PI with D.B.Rubin)
- July 1991-June 1992 William H. Milton Grant, Harvard University,
Title: A Statistical Analysis of Infant Temperaments, \$3,800

Books and Publications:

Books:

Gelman, A., Carlin, J. B., Stern, H. S., Dunson, D. B., Vehtari, A. and Rubin, D. B., (2013), *Bayesian Data Analysis*, 3rd edition, Chapman and Hall/CRC: Boca Raton.

Peck, R., Casella, G., Cobb, G., Hoerl, R., Nolan, D., Starbuck, R., Stern, H. (Editors), (2006), *Statistics: A Guide to the Unknown*, 4th edition, Thomson/Brooks Cole: Belmont, CA.

Gelman, A., Carlin, J. B., Stern, H. S., and Rubin, D. B., (2003), *Bayesian Data Analysis*, 2nd edition, Chapman and Hall/CRC: Boca Raton.

Gelman, A., Carlin, J. B., Stern, H. S., and Rubin, D. B., (1995), *Bayesian Data Analysis*, Chapman and Hall: London.

Refereed Publications (journals, book chapters, conference proceedings):

1. Stern, H. S. (1988), "Gamma Processes, Paired Comparisons and Ranking," *Computing Science and Statistics: Proceedings of the 20th Symposium on the Interface*, pp. 635-639.
2. Stern, H. S. and Cover, T. M. (1989), "Maximum Entropy and the Lottery," *Journal of the American Statistical Association*, Vol. 84, pp. 980-985.
3. Stern, H. S. (1990), "A Continuum of Paired Comparisons Models," *Biometrika*, Vol. 77, pp. 265-273.
4. Stern, H. S. (1990), "Models for Distributions on Permutations," *Journal of the American Statistical Association*, Vol. 85, pp. 558-564.
5. Stern, H. S. (1991), "On the Probability of Winning a Football Game," *The American Statistician*, Vol. 45, pp. 179-183.
6. Stern, H. S. (1992), "Are all Linear Paired Comparison Models Empirically Equivalent?," *Mathematical Social Sciences*, Vol. 23, pp. 103-117.

7. Stern, H. S. (1993), "Probability Models on Rankings and the Electoral Process," in *Probability Models and Statistical Analysis for Ranking Data*, eds. M. A. Fligner and J. S. Verducci, Springer-Verlag: New York, pp. 173-195.
8. James, B., Albert, J., and Stern, H. S. (1993), "Answering Questions about Baseball Using Statistics," *Chance*, Vol. 6, No. 2, pp. 17-22,30.
9. Stern, H. S., Arcus, D., Kagan, J., Rubin, D. B., and Snidman, N. (1994), "Statistical Choices in Infant Temperament Research." *Behaviormetrika*, Vol. 21, No. 1, pp. 1-17.
10. Stern, H. S. (1994), "A Brownian Motion Model for the Progress of Sports Scores," *Journal of the American Statistical Association*, Vol. 89, 1128-1134.
11. Rubin, D. B., and Stern, H. S. (1994), "Testing in Latent Class Models Using a Posterior Predictive Check Distribution," in *Latent Variables Analysis: Applications for Developmental Research*, eds. A. von Eye and C. Clogg, Sage Publications: Thousand Oaks, CA, pp. 420-438.
12. Stern, H. S. (1994), "Estimating the Probabilities of the Outcomes of a Horse Race," in *Efficiency of Racetrack Betting Markets*, eds. W. T. Ziemba, D. B. Hausch, and V. Lo, Academic Press: San Diego, CA, pp. 225-235.
13. Rubin, D. B., Stern, H. S., and Vehovar, V. (1995), "Handling 'Don't Know' Survey Responses: The Case of the Slovenian Plebiscite," *Journal of the American Statistical Association*, Vol. 90, pp. 822-828.
14. Stern, H. S. (1995), "Who's Number 1 in College Football? ...And How Might We Decide?," *Chance*, Vol. 8, No. 3, pp. 7-14.
15. Stern, H. S., Arcus, D., Kagan, J., Rubin, D. B., and Snidman, N. (1995), "Using Mixture Models in Temperament Research," *International Journal of Behavioral Development*, Vol. 18, pp. 407-423.
16. Stern, H. S. (1996); "Neural Networks in Applied Statistics" (with discussion), *Technometrics*, Vol. 38, pp. 205-220.
17. Babcock, B. A., Carriquiry, A. L., and Stern, H. S. (1996), "Evaluation of Soil Test Information in Agricultural Decision Making," *Applied Statistics*, Vol. 45, pp 447-461.
18. Gelman, A., Meng, X.-L., and Stern, H. S. (1996), "Posterior Predictive Assessment of Model Fitness via Realized Discrepancies" (with discussion), *Statistica Sinica*, Vol. 6, pp. 733-807.
19. Thurston, G. M., Hayden, D. L., Burrows, P., Clark, J.I., Taret, V. G., Kandel, J., Courogen, M., Peetermans, J. A., Bowen, M. S., Miller, D., Sullivan, K. M., Storb, R., Stern, H., and Benedek, G. B. (1997), "Quasielastic Light Scattering Study of the Living Human Lens as a Function of Age," *Current Eye Research*, Vol. 16, No. 3, pp. 197-207.
20. Morduch, J. J., and Stern, H. S. (1997), "Using Mixture Models to Detect Sex Bias in Health Outcomes in Bangladesh," *Journal of Econometrics*, Vol. 77, pp. 259-276.
21. Li, H. and Stern, H. S. (1997), "Bayesian Inference for Nested Designs Based on Jeffreys' Prior," *The American Statistician*, Vol. 51, pp. 219-224.
22. Glickman, M. E., and Stern, H. S. (1998), "A State-Space Model for National Football League (NFL) Scores," *Journal of the American Statistical Association*, Vol. 93, pp. 25-35.
23. Stern, H. S. (1998), "American Football," in *Statistics in Sport* edited by J. Bennett, Arnold: London, pp. 3-23.
24. Stern, H. S. (1998), "A Primer on the Bayesian Approach to Statistical Inference," *Stats*, No. 23; pp. 3-9.
25. Rubin, D. B., and Stern, H. S. (1998), "Sample Size Determination Using Posterior Predictive Distributions," *Sankhya, Ser. B*, Vol. 60, pp. 161-175.

26. Janzen, F. J., and Stern, H. S. (1998), "Logistic Regression for Empirical Studies of Multivariate Selection," *Evolution*, Vol. 52, pp. 1564-1571.
27. Stern, H. S. (1999), "The Man Who Makes the Odds: An Interview with 'Roxy' Roxborough," *Chance*, Vol. 12, No. 1, pp. 15-21.
28. Gong, G., Stern, H. S., Cheng, S.-C., Fong, N., Mordeson, J., Deng, H.-W., Johnson, M. L., Recker, R. R. (1999), "The Association of Bone Mineral Density with Vitamin D Receptor Gene Polymorphisms," *Osteoporosis International*, Vol. 9, pp. 55-64.
29. Stern, H. S., and Cressie, N. (1999), "Inference for Extremes in Disease Mapping," in *Disease Mapping and Risk Assessment for Public Health*, eds. A. Lawson, A. Biggeri, D. Bohning, E. Lesaffre, J-F. Viel, R. Bertollini, John Wiley and Sons: Chichester, pp. 63-84.
30. Carlin, B. P. and Stern, H. S. (1999), "Designing a College Football Playoff System," *Chance*, Vol. 12, No. 3, pp. 21-26.
31. Cressie, N, Stern, H. S. and Reber, D. L. (2000), "Mapping Rates Associated with Polygons," *Journal of Geographical System*, Vol. 2, pp. 61-69.
32. Reber, D. L., Stern, H. S., and Berger, P. J. (2000), "Comparing Traditional and Bayesian Analyses of Selection Experiments in Animal Breeding," *Journal of Agricultural, Biological, and Environmental Statistics*, Vol. 5, pp. 240-256.
33. Stern, H. S. and Cressie, N. (2000), "Posterior predictive Model Checks for Disease Mapping Models," *Statistics in Medicine*, Vol. 19, pp. 2377-2397.
34. Sinharay, S. and Stern, H. (2001), "Bayes Factors for Variance Component Testing in Generalized Linear Mixed Models," in *Bayesian Methods with applications to science, policy and official statistics (ISBA 2000 Proceedings)*, pp. 507-516.
35. Stern, H. S. (2001), "Bayesian Statistics," in *International Encyclopedia of the Social and Behavioral Sciences*, Vol. 2, pp. 1052-1056.
36. Sinharay, S., Stern H. S., and Russell, D. (2001), "The Use of Multiple Imputation for the Analysis of Missing Data," *Psychological Methods*, Vol. 6, pp. 317-329.
37. Sinharay, S., and Stern, H. S. (2002), "On the Sensitivity of Bayes Factors to the Prior Distributions," *The American Statistician*, Vol. 56, pp. 196-201.
38. Zhang, J., Pu, J., McCalley, J. D., Stern, H. S., and Gallus, Jr., W. A. (2002), "A Bayesian Approach for Short-Term Transmission Line Thermal Overload Risk Assessment," *IEEE Transactions on Power Delivery*, Vol. 17, pp. 770-778.
39. Sinharay, S., and Stern H. S. (2003), "Posterior Predictive Model Checking in Hierarchical Models," *Journal of Statistical Planning and Inference*, Vol. 111, 209-221.
40. Sarno, R. J., M. S. Bank, H. S. Stern, and W. L. Franklin (2003), "Forced Dispersal of Juvenile Guanacos (*Lama guanicoe*): causes, variation, and fates of individuals dispersing at different times," *Behavioral Ecology and Sociobiology*, Vol. 54, pp. 22-29.
41. Wright, D., Stern, H. S., and Cressie, N. (2003), "Loss Functions for Estimation of Extrema With an Application to Disease Mapping," *Canadian Journal of Statistics*, Vol. 31, pp. 251-266.
42. Stern, H. S. (2004), "Statistics and the College Football Championship," *The American Statistician*, Vol. 58, pp. 179-185, 194-195 (with discussion).
43. Stern, H. S., and Jeon, Y. (2004), "Applying Structural Equation Models with Incomplete Data," in *Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives*, eds. A. Gelman and X-L Meng, John Wiley and Sons: Chichester, UK, pp. 331-342.

44. Zhang, H. and Stern, H. (2005), "Investigation of a Generalized Multinomial Model for Species Data," *Journal of Statistical Computation and Simulation*, Vol. 75, No. 5, pp. 347-362.
45. Stern, H. (2005), "Baseball Decision Making By the Numbers", in *Statistics: A Guide to the Unknown, 4th edition*, eds. R. Peck, G. Casella, G. Cobb, R. Hoerl, D. Nolan, R. Starbuck, H. Stern, Thomson Brooks/Cole: Belmont, pp. 393-406.
46. Sinharay, S. and Stern, H. S. (2005), "An Empirical Comparison of Methods for Computing Bayes Factors in Generalized Linear Mixed Models," *Journal of Computational and Graphical Statistics*, Vol. 14, No. 2, pp. 415-435.
47. Casey, D. S., Stern, H. S., and Dekkers, J. C. M. (2005), "Identification of Errors and Factors Associated With Errors in Data from Electronic Swine Feeders," *Journal of Animal Science*, Vol. 83, pp. 969-982.
48. Kim, S., Smyth, P., Stern, H., and Turner, J. (2005), "Parametric Response Surface Models for Analysis of Multi-site fMRI Data," in *Medical Image Computing and Computer-Assisted Intervention 2005 (MICCAI 2005)* (refereed conference proceedings), eds. J. Duncan and G. Gerig, Springer-Verlag: Heidelberg, pp. 352-359.
49. Stern, H. S. and Sinharay, S. (2005), "Bayesian Model Checking and Model Diagnostics," in *Bayesian Thinking: Modeling and Computation, Handbook of Statistics, Vol. 25*, eds. D.K. Dey and C. R. Rao, Elsevier: Amsterdam, pp. 171-192.
50. Stern, H. (2005), "Model Inference or Model Selection: Discussion of Klugkist, Laudy, and Hoijsink" (refereed discussion), *Psychological Methods*, Vol. 10, No. 4, pp. 494-499.
51. Cole, S. A., Tobin, W. A., Boggess, L. N., and Stern, H. S. (2005), "A Retail Sampling Approach to Assess Impact of Geographic Concentrations on Probative Value of Comparative Bullet Lead Analysis," *Law, Probability and Risk*, Vol. 4, No. 4, pp. 199-216.
52. Sarno, R. J., Bank, M. S., Stern, H. S., and Franklin, W. L. (2006), "Effects of Age, Sex, Season, and Social Dynamics on Juvenile Guanaco Subordinate Behavior," *Journal of Mammalogy*, Vol. 87, No. 1, pp. 41-47.
53. Zhang, H. and Stern, H. S. (2006), "Assessment of Ancestry Probabilities in the Presence of Genotype Errors," *Theoretical and Applied Genetics*, Vol. 112, No. 3, pp. 472-482.
54. Sinharay, S., Johnson, M. S., and Stern, H. S. (2006), "Posterior Predictive Assessment of Item Response Theory Models," *Applied Psychological Measurement*, Vol. 30, No. 4, pp. 298-321.
55. Kim, S., Smyth, P., and Stern, H. (2006), "A Nonparametric Bayesian Approach to Detecting Spatial Activation Patterns in fMRI Data," in *Medical Image Computing and Computer-Assisted Intervention 2006 (MICCAI 2006)* (refereed conference proceedings), eds. R. Larsen, M. Nielsen, J. Sporring, Springer-Verlag: Heidelberg, pp. 217-224.
56. Gelman, A. and Stern, H. S. (2006), "The Difference Between "Significant" and "Not Significant" is not Itself Statistically Significant," *The American Statistician*, Vol. 60, No. 4, pp. 328-331.
57. Zhong, Q., Lazaridis, I., Deshpande, M., Li, C., Mehrotra, S., Stern, H. (2006), "Supporting Approximate Similarity Queries with Quality Guarantees in P2P Systems," in *International Conference on Management of Data (COMAD 2006)* (refereed conference proceedings).
58. Madsen, E. R., and Stern, H. S. (2007), "Time Trends of Methylmercury in Walleye in Northern Wisconsin: A Hierarchical Bayesian Analysis," *Environmental Science and Technology*, Vol. 41, No. 13, pp. 4568-4573.
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142. Kaye DH, Stern HS (in press) "Reference Guide on Statistics and Research Methods," Chapter 7 in National Research Council, *Reference Manual on Scientific Evidence*, National Academies Press: Washington.

Discussions / Comments / Letters to the Editor:

- D1. Stern, H. S. and Morris, C. N. (1993), "Looking for Small Effects: Power and Finite Sample Bias Considerations," a comment on C. Albright's "A Statistical Analysis of Hitting Streaks in Baseball," *Journal of the American Statistical Association*, Vol. 88, pp. 1189-1194.
- D2. Stern, H. S. (2000), Discussion of papers by Berger and Bayarri, Robins, Ventura and van der Vaart, *Journal of the American Statistical Association*, Vol. 95, 1157-1159.

- D3. Stern, H. S. (2003) Discussion of paper “Identifying Mixtures of Regression Equations by the SAR Procedure”, by D. Pena, J. Rodriguez, G C Tiao in *Bayesian Statistics 7*, eds. J. M. Bernardo et al., Oxford University Press: Oxford, pp. 343-345.
- D4. Stern, H. S. (2006) “In Favor of a Quantitative Boycott of the Bowl Championship Series,” *Journal of Quantitative Analysis in Sports*, Vol. 2: No. 1, Article 4.
- D5. Stern, H. S. (2009) Discussion of “A Stochastic Partitioning Method to Associate High-dimensional Responses and Covariates” by S. Monni and M. G. Tadesse, *Bayesian Analysis*, Vol. 4: No. 3, pp.453-456. (DOI:10.1214/09-BA416D)
- D6. Stern, H. S. (2011) Discussion of “Statistical Inference: The Big Picture” by R. E. Kass, *Statistical Science*, Vol. 26, #1, 17-18.
- D7. Stern, H. (2012) Discussion of “Quantifying the Weight of Evidence from a Forensic Fingerprint Comparison: A New Paradigm” by C. Neumann, I. W. Evett, and J. Skerrett, *Journal of the Royal Statistical Society A*, Vol. 175, Part 2, pp. 408-409.
- D8. Stern, H. (2014) Comment on “The Need for More Emphasis on Prediction: A “Nondenominational” Model-Based Approach” by D. A. Harville, *The American Statistician*, Vol. 68, No. 2, pp 83-84.
- D9. Salyards, J., Maccrehan, W., Denton, B., Kafadar, K., Lednev, I., Stern, H., Thompson, W. (2019) “Letter to the Editors regarding Rodriguez-Cruz, S.E., and R.S. Montreuil. “Assessing the quality and reliability of the DEA drug identification process. *Forensic Chemistry* 6 (2017): 36–43.”, *Forensic Chemistry*, 13, ePub 2019 Feb 19. <https://doi.org/10.1016/j.forc.2019.100147>
- D10. Stern, H. (2019) Contribution to “Stephen Elliott Fienberg 1942-2016, Founding Editor of the Annual Review of Statistics and Its Application” by A.L.Carriquiry, N.Reid, A.B.Slavkovic, *Annual Review of Statistics and Its Application*, 6: 1-18 (see pg 10). <https://doi.org/10.1146/annurev-statistics-030718-105334>
- D11. Stern, HS, Richardson, DJ and Papaefthymiou, M. (2021). “Data Science and Computing: The View From a Sister Campus,” *Harvard Data Science Review*, 3(2). <https://doi.org/10.1162/99608f92.1a7d19ab>
- D12. Advisory Committee on Forensic Science (2023) “ASA Forensic Science Committee Celebrates 10 Years,” *AmStat News* (magazine) (Contributed material along with 6 others).
- D13. Scurich N, Stern H (2023) “Commentary on: Monson KL, Smith ED, Peters EM. Accuracy of Comparison Decisions by Forensic Firearms Examiners published in *Journal of Forensic Science* 68(1):86-100.” <https://doi.org/10.1111/1556-4029.15258>.
- D14. Garrett BL, CarriquiryA, Kafadar K, Mejia R, Rudin C, Scurich N, Stern H (2024) “AI and Criminal Procedure Rights: A Response to the National Institute of Justice Request for Input”

Government Report:

- G1. CSAFE (jointly authored with CSAFE leadership team) - Report on October 2019 CSAFE Bitemark Thinkshop – This report was submitted to the National Institute of Standards and Technology in support of their scientific foundation review of bitemark analysis. The report ultimately appeared as supplemental material to NIST Interagency Report 8352 (<https://doi.org/10.6028/NIST.IR.8352>) and can be found directly at <https://doi.org/10.6028/NIST.IR.8352sup1>. Though formally submitted by the entire CSAFE research center, I was the primary author of the initial part of the report that was attached to a workshop summary produced by a contractor.

Unrefereed Publications (unrefereed proceedings, columns):

- U1. Stern, H. S. (1993), "Who's Number One? - Rating Football Teams," *1992 Proceedings of the Section on Statistics in Sports*, American Statistical Association: Alexandria, pp. 1-6..
- U2. Stern, H. S. (1994), "Neural Networks in Applied Statistics," *1993 Proceedings of the Statistical Computing Section*, American Statistical Association: Alexandria, pp. 150-155.
- U3. Glickman, M. E., and Stern, H. S. (1995), "Inference from an Autoregressive State-Space Model via Iterative Simulation," *1994 Proceedings of the Section on Statistics in Sports*, American Statistical Association: Alexandria, VA, pp. 72-76.
- U4. Stern, H. S. (1995), "Problems with Logistic Autoregression," *1994 Proceedings of the Biopharmaceutical Section*, American Statistical Association: Alexandria, VA, pp. 106-110.
- U5. Stern, H. S., and Cressie, N. (1996), "Bayesian and Constrained Bayesian Inference for Extremes in Epidemiology," *1995 Proceedings of the Section on Epidemiology*, American Statistical Association: Alexandria, VA, pp. 11-20.
- U6. Stern, H. S. (1996), "Who's Hot and Who's Not: Runs of Success and Failure in Sports," *1995 Proceedings of the Section on Statistics in Sports*, American Statistical Association, pp. 26-35.
- U7. Stern, H. S. (1997), "Baseball by the Numbers," in the column "A Statistician Reads the Sports Pages", *Chance*, Vol. 10, No. 1, pp. 38-41.
- U8. Stern, H. S. (1997), "Judging Who's Hot and Who's Not," in the column "A Statistician Reads the Sports Pages", *Chance*, Vol. 10, No. 2, pp. 40-43.
- U9. Stern, H. S. (1997), "Shooting Darts," in the column "A Statistician Reads the Sports Pages," *Chance*, Vol. 10, No. 3, pp. 16-19.
- U10. Stern, H. S. (1997), "How Accurately Can Sports Outcomes Be Predicted?," in the column "A Statistician Reads the Sports Pages," *Chance*, Vol. 10, No. 4, pp. 19-23.
- U11. Stern, H. S. and Mock, B. R. (1998), "College Basketball Upsets: Will a 16-Seed Ever Beat a 1-Seed?," in the column "A Statistician Reads the Sports Pages," *Chance*, Vol. 11, No. 1, pp. 26-31.
- U12. Stern, H. S. (1998), "Best-of-Seven Playoff Series," in the column "A Statistician Reads the Sports Pages," *Chance*, Vol. 11, No. 2, pp. 46-49.
- U13. Stern, H. S. (1998), "Football Strategy: Go For It!" in the column "A Statistician Reads the Sports Pages," *Chance*, Vol. 11, No. 3, pp. 20-24.
- U14. Stern, H. S. (1998), "How Accurate Are the Posted Odds?" in the column "A Statistician Reads the Sports Pages," *Chance*, Vol. 11, No. 4, pp. 17-21.
- U15. Reber, D. L., Stern, H. S., and Berger, P. J., (1999) "Bayesian Analysis of the Mixed Linear Model with Applications to Selection in Animal Breeding," in *1998 Proceedings of the Section on Bayesian Statistical Science*, American Statistical Association: Alexandria, VA, pp. 48-53.
- U16. Schuckers, M. E., and Stern, H. S., (1999) "A Hierarchical Bayesian Approach for Analyzing a Polychotomous Response From a Cluster Sample," in *1998 Proceedings of the Section on Survey Research Methodology*, American Statistical Association: Alexandria, VA, pp. 387-391.
- U17. Stephenson, W. R. and Stern, H. (2000), "AP Statistics", *Stats*, No. 28, pp. 23-27.
- U18. Stern, H. (2005), "Introduction to the Football Articles," in *Anthology of Statistics in Sports*, eds. J. Albert, J. Bennett, J. J. Cochran, SIAM: Philadelphia, Chapter 3, pp. 13-15.

Advising:

Ph.D. Students:

| | |
|-------------------|---|
| Mark E. Glickman | "Paired comparison models with time-varying parameters" (Harvard, 1993) |
| Yoon-Sook Jeon | "Missing data in structural equation models" (Iowa State, 1998) |
| Jianlin Cheng | "Finite mixtures of linear regression models" (Iowa State, 1999) |
| Deanne Reber | "Inference for extremes with applications to animal breeding and disease mapping" (Iowa State, 1999) |
| Michael Schuckers | "Bayesian analysis of hierarchical models for polychotomous data from a multi-stage cluster sample" (Iowa State, 1999) |
| Grace Liu | "Efficiency of Markov chain Monte Carlo algorithms for Bayesian inference in random regression models" (Iowa State, co-major with Animal Science, 2000) |
| Sandip Sinharay | "Bayes factors for variance component testing in generalized linear mixed models (Iowa State, 2001) |
| Hongmei Zhang | "Probability models for design and analysis of genetic data" (Iowa State, 2003) |
| Thao Duong | "Generalized probabilistic biclustering for pattern recognition" (UC Irvine, 2013) |
| Jie Shen | "Bayesian hierarchical models with spatial prior distributions in genome-wide association studies" (UC Irvine, 2013) |
| Xu Tian | "A time-varying low dimensional representation for spatio-temporal data" (UC Irvine, 2014) |
| Kevin Heins | "A statistical approach to detecting patterns in behavioral event sequences" (UC Irvine, 2014) |
| Brian Vegetable | "Methods for Optimal Covariate Balance in Observational Studies for Causal Inference" (UC Irvine, 2018) |
| Maozhu Dai | "Non-Parametric Tests for Treatment Effect Heterogeneity in Randomized Experiments and Observational Studies" (UC Irvine, 2021) |
| Hina Arora | "Statistical Issues in Measurement with Applications in Forensics and Methyloomics" (UC Irvine, 2023) |
| Tong Zou | "Statistical Methods for Directional Data with Application to Bloodstain Pattern Analysis" (UC Irvine, 2024) |
| Corey Katz | (UC Irvine, expected 2025) |

M.S. Students (sole or primary advisor):

| | |
|-----------------|--|
| Katherine Sunde | "Logistic regression for statistical analyses of natural selection" (1995) |
| Shawn Bates | "A study of rating methods applied to college hockey" (1995) (supervised creative component with D. Cook as major professor) |
| Angela Jones | "Logistic regression with random effects in a study of in-vitro fertilization" (1996) |
| Deanne Reber | "Bayesian and classical analysis of the mixed linear model" (1996) |
| James Smith | "Modeling the human body's thermoregulatory response to exercise using statistical and engineering techniques" (1996) (helped supervise thesis with D. Rollins as major professor) |
| Barbara Mock | "On the predictability of college basketball" (1997) |
| Zach Dietz | "Poisson regression in studies of natural selection" (1998) |
| Sandip Sinharay | "A study of posterior predictive model checking" (1998) |
| Hongmei Zhang | "Poisson mixture models in finance" (2001) |

Stephen Weigand “Mixture models for gestation lengths of cattle” (2001)

Conference Presentations, Invited Seminars, Continuing Education Courses:

Continuing Education Courses / Workshops:

August 1996 "Bayesian Data Analysis," Joint Statistical Meetings, Chicago, IL (53 students)
August 1997 "Bayesian Data Analysis," Joint Statistical Meetings, Anaheim, CA (71 students)
May 2000 "A Workshop in Forensic Statistics," Federal Bureau of Investigation, Washington, DC (26 students)
August 2009 "Bayesian Statistical Methods and Their Application to Clinical Trials," Orange County Regulatory Affairs Group, Irvine, CA
March 2016 "An Introduction to Statistical Thinking for Forensic Practitioners," Florida Society of Crime Laboratory Directors and Palm Beach County Sheriff's Office, West Palm Beach, FL (70 students)
April 2017 "An Introduction to Statistical Thinking for Forensic Practitioners," Virginia Department of Forensic Science, Roanoke, VA (24 students)
April 2017 "An Introduction to Statistical Thinking for Forensic Practitioners," Bellevue WA Police Department, Bellevue, WA (40 students – Kings County, Seattle, Tacoma, Bellevue, other locations)
August 2017 "An Introduction to Statistical Thinking for Forensic Practitioners," International Association for Identification Annual Meeting, Atlanta, GA (8 students)
Feb/Mar 2018 "An Introduction to Statistical Thinking for Forensic Practitioners," Orange County Crime Lab, Santa Ana, CA (75 students)
August 2018 "An Introduction to Statistical Thinking for Forensic Practitioners," International Association for Identification Annual Meeting, San Antonio, TX (15 students)
April 2019 "Bayesian Statistical Analysis," Yau Mathematical Sciences Center, Tsinghua University, Beijing, China (10 students)
April 2019 "Forensic Statistics and the Assessment of Probative Value", Legal Training Workshop, Madison County (IL) Government Center, Edwardsville, IL (40 participants)
May 2019 "Forensic Statistics and the Assessment of Probative Value", Legal Training Workshop, Office of the Cook County (IL) Public Defender, Chicago, IL (7 participants)
August 2019 "An Introduction to Statistical Thinking for Forensic Practitioners," International Association for Identification Annual Meeting, Reno, NV (18 students) (w/ Naomi Kaplan)
September 2019 – March 2020
Statistical Workshop for School of Medicine / School of Biological Science Trainees (4 workshops – September, November, January, March) (20 students)
January 2020 "An Introduction to Statistical Thinking for Forensic Practitioners," San Francisco Police Department, San Francisco, CA (20 students)
March / April 2021 "An Introduction to Statistical Thinking for Forensic Practitioners," CSAFE Short Course (online 3/26, 4/9, 4/23) (approx. 150 students) (w/ Alicia Carriquiry)

- August 2021 "An Introduction to Statistical Thinking for Forensic Practitioners," International Association for Identification Annual Meeting, Nashville, TN (21 students) (w/ Naomi Kaplan)
- October / November 2021 "An Introduction to Statistical Thinking for Forensic Practitioners," CSAFE Short Course (online 10/22, 11/5, 11/12) (approx. 120 students)
- June 2022 "An Introduction to Statistical Thinking for Forensic Practitioners," CSAFE Short Course (online 6/3, 6/10, 6/17) (approx. 60 students per session)
- August 2022 "An Introduction to Statistical Thinking for Forensic Practitioners," International Association for Identification Annual Meeting, Omaha, NE (25 students) (w/ Alicia Carriquiry)
- October / November 2022 "An Introduction to Statistical Thinking for Forensic Practitioners," CSAFE Short Course (online 10/14, 10/21, 10/28, 11/4) (approx. 45 students per session)
- March / April 2023 "An Introduction to Statistical Thinking for Forensic Practitioners," CSAFE Short Course (online 3/31, 4/7, 4/14, 4/21) (approx. 25 students per session)
- August 2023 "An Introduction to Statistical Thinking for Forensic Practitioners," International Association for Identification Annual Meeting, National Harbour, MD (19 students)
- February 2024 "Statistics and Forensic Science: From Probability to Black Box Studies to Likelihood Ratios," 76th Annual American Academy of Forensic Sciences (AAFS) Scientific Conference, Denver, CO (54 students) (w/ Jeff Salyards)

Conference Invited Papers:

- April 1986 "On the Probability of Winning A Football Game," TIMS/ORSA Annual Meeting, Los Angeles, CA
- October 1986 "Maximum Entropy and the Lottery," IEEE Information Theory Meeting, Ann Arbor, MI
- April 1988 "Gamma Processes, Paired Comparisons, and Rankings," 20th Interface Symposium, Fairfax, VA
- June 1990 "Voting Paradoxes," AMS-IMS-SIAM Conference on Probability Models and Statistical Analyses for Ranking Data, Amherst, MA
- May 1992 "Testing in Latent Class Models Using a Posterior Predictive Check Distribution," Conference on Analysis of Latent Variables in Developmental Research, University Park, PA
- August 1992 "Who's #1: Probability and Statistics in Sports," Joint Statistical Meetings, Boston, MA
- October 1992 "Who's # 1: Probability and Statistics in Sports," Ohio Statistics Conference, Bowling Green, OH
- August 1995 "Who's Hot and Who's Not: Runs of Success and Failure in Sports," Joint Statistical Meetings, Orlando, FL
- August 1995 "Inference for Extremes in Epidemiology," (with N. Cressie) Joint Statistical Meetings, Orlando, FL
- May 1997 "Bayesian Inference for Extremes in Disease Incidence Rates (with N. Cressie) Workshop on Spatial Epidemiology, Vancouver, BC, Canada
- August 1997 "If a Statistician were the Football Coach," Joint Statistical Meetings, Anaheim, CA
- October 1997 "Inference for Extremes in Animal Breeding," 50th Anniversary Conference, Department of Statistics, Iowa State University, Ames, IA
- December 1997 "Probability and Statistics in Sports," Chance Lectures, Dartmouth College, Hanover, NH
- May 1999 "Model Checking, Model Selection and Random Effects," Symposium on Model Selection, Empirical Bayes and Related Topics, Lincoln, NE

August 1999 "To Bayes or Not to Bayes,"
Introductory Overview Lecture, Joint Statistical Meetings, Baltimore, MD

May 2000 "Model Checking for Disease Mapping Models,"
International Society for Bayesian Analysis, Hersonissos, Crete, Greece

August 2000 "To Bayes or Not to Bayes,"
Introductory Overview Lecture, Joint Statistical Meetings, Indianapolis, IN

August 2000 "The Basics of Talking Bayes,"
Joint Statistical Meetings, Indianapolis, IN

August 2001 "When it Pays to Go Bayes,"
Introductory Overview Lecture, Joint Statistical Meetings, Atlanta, GA

September 2001 "Markov Chain Baseball", "On the Probability of Winning", "Least Squares Ratings"
Statistics in Sports Conference, Miami University, Oxford, OH

August 2002 "When it Pays to Go Bayes,"
Introductory Overview Lecture, Joint Statistical Meetings, New York, NY

October 2003 "Better Sports through Statistics," "Bayesian Statistics: How? Why?"
Fall Meeting, Southern California American Statistical Association Chapter, Pomona, CA

November 2003 "The Complete Idiot's Guide to Rating Sports Teams"
IMS Mini-Meeting on Sports and Statistics, Worcester Polytechnic Institute, Worcester, MA

May 2004 "Bayesian EDA is Not an Oxymoron"
International Society for Bayesian Analysis (ISBA) World Meeting, Vina del Mar, Chile

August 2004 "The Probative Value of Bullet Lead Evidence"
Joint Statistical Meetings, Toronto, Canada

October 2004 "The Bullets Match ... But Who Cares"
Decisions and Justice Conference, Institute for Mathematics in the Behavioral Sciences,
Irvine, CA

December 2004 "What is the Point of the Bowl Championship Series"
Decisions, Sports and Statistics Conference, Institute for Mathematics in the Behavioral
Sciences, Irvine, CA

February 2005 "Forensic Statistics: The Bullets Match ... But Who Cares"
Better Policy Through Statistics: A Symposium in Honor of John Rolph
Costa Mesa, CA

May 2005 "Ancestry Probability Assessment in the Presence of Genotyping Errors"
Bayes, Multivariate Analysis, and CASM: A Statistics Conference in Honor of Jim Press,
Riverside, CA

May 2005 "Give Statistics a Chance", Commencement Address
Department of Statistics, University of California
Berkeley, CA

August 2005 "Rating College Football teams and the Bowl Championship Series"
Joint Statistical Meetings, Minneapolis, MN

September 2005 "Bayesian Statistical Methods: How and (Most Important) Why?"
American Fisheries Society, Anchorage, Alaska

May 2006 "Forensic Statistics: On Finding a Needle in a Haystack" (Invited Discussion)
Interface 2006 (38th Symposium on the Interface of Statistics, Computing Science and
Applications), Pasadena, CA

August 2006 "On Model Selection in Variance Components Models"
Joint Statistical Meetings, Seattle, WA

August 2006 Invited Participant, Drug Treatment Heterogeneity Meeting, Pfizer/Center for Health Policy
Research, UCI

July 2007 "Baseball Statistics Meets Mathematical Statistics"
Symposium on Statistics and Operations Research in Baseball, CSU - East Bay, Hayward,
CA

August 2007 “Intra-University Collaborations (How to Win Friends, Influence People and Get Resources)”, Department Chair’s Workshop, Joint Statistical Meetings, Salt Lake City, UT

May 2008 “Use and Abuse of Information in Sports”, Elements of Information Theory, Palo Alto, CA

August 2008 “Applying Bayesian Ideas in a Multisite fMRI Study”, Joint Statistical Meetings, Denver, CO

June 2009 “Small Sample Statistics in Baseball: The Batter-Pitcher Matchup”, Statistics Society of Canada Meeting, Vancouver, BC

March 2011 Participant, Panel on Research Centers, AAU Dean’s Meeting, Gainesville, FL

August 2011 “The Bowl Championship Series: Still Crazy After All These Years”
Joint Statistical Meetings, Miami, FL

March 2014 “A Statistical Approach to Detection Patterns in Behavioral Event Sequences”
Workshop on Recent Advances in Bayesian Inference, UC Irvine, Irvine, CA

April 2014 “Watching Sports Through the Eyes of a Statistician”, MAA Southern California – Nevada Spring Meeting, Irvine, CA

July 2014 Participant, Panel on Working with Your Dean, Snowbird Computer Science Chair’s Meeting, Snowbird, UT

August 2014 “Statistics in the Practice of Forensic Statistics”, Joint Statistical Meetings, Boston, MA

March 2015 “Intro to ICS and Corporate Partnerships”, Southern California Society for Information Management (SCSIM), Long Beach, CA

February 2016 “Likelihood Ratios in Forensic Statistics: When or When Not to Use Them”, AAAS Meetings, Washington, DC

May 2016 Participant, Panel on Similarity-Based Likelihood Ratio Methods, Technical Colloquium: Quantifying the Weight of Technical Evidence, NIST, Gaithersburg, MD

May 2016 Participant, Panel on Confidence Intervals for Likelihood Ratios, Technical Colloquium: Quantifying the Weight of Technical Evidence, NIST, Gaithersburg, MD

August 2016 “Strengthening the Science in Forensic Science” (discussant), Joint Statistical Meetings, Chicago, IL

March 2017 Participant, Panel on 2016 NASEM Report “Commercial Motor Vehicle Driver Fatigue, Long-Term Health and Highway Safety”, 10th International Conference on Managing Fatigue, San Diego, CA

September 2017 “Characterizing Handwriting Complexity for Forensic Evaluation”, Internal Conference on Forensic Inference and Statistics, Minneapolis, MN

January 2018 “Why Error Rates?”, CSAFE Error Rate Symposium, Arlington, VA

February 2018 “Science and the Fair Administration of Justice” (discussant), AAAS Meeting, Austin, TX

May 2018 “Getting Beyond the Mean in Predictive Inference”, Conference on Predictive Inference and its Applications, Iowa State University, Ames, IA

June 2018 “The Likelihood Ratio and Other Paradigms for Forensic Evidence”, ABA Criminal Justice Section’s Ninth Annual Prescription for Criminal Justice Forensics Program, New York, NY

June 2018 “Forensic Statistics and the Assessment of Probative Value”, NACDL Cardozo Law National Forensic College, New York, NY

August 2018 “The Role of Statistics in Improving Forensic Science”, Joint Statistical Meetings, Vancouver, BC

August 2018 “Continuous Improvement in Academic Publishing”, Joint Statistical Meetings, Vancouver, BC

August 2018 “Gatekeepers of Statistical Scientific Evidence: Legal, Ethical and Educational Responsibilities of Judges and Lawyers” (panel), American Bar Association, Chicago, IL

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| August 2018 | “Statistics 101: Forensic Statistics and the Assessment of Probative Value”, National Forensic Science Symposium, Department of Justice, Washington, DC |
| October 2018 | “The Rise of Data”, ICS: The Next 50 Years (panel presentation), University of California, Irvine, CA |
| December 2018 | “Forensic Statistics and the Probative Value of Evidence”, Organization of Scientific Area Committees (OSAC) for Forensic Science (in-person meeting), Phoenix, AZ |
| March 2019 | “The Rise of Data in Science and Society” (keynote address), Halcioglu Data Science Institute 1 year anniversary symposium, University of California, San Diego |
| May 2019 | “To P-value or Not to P-value: What is a Scientist to Do”, UCI Biological Sciences/School of Medicine Faculty Retreat, Costa Mesa, CA |
| May 2019 | “Statistics 1 & 2: A case-based introduction to probability theory”, ABA Criminal Justice Division’s Tenth Annual Prescription for Criminal Justice Forensics Program, New York, NY |
| May 2019 | “An Update from the Center for Statistics and Applications in Forensic Evidence”, ABA Criminal Justice Division’s Tenth Annual Prescription for Criminal Justice Forensics Program, New York, NY |
| June 2019 | “Statistical Issues in Forensic Science”, NACDL Cardozo Law National Forensic College, New York, NY |
| August 2019 | “CSI at the JSM: Forensic Statistics and Assessing the Probative Value of Evidence,” (Introductory Overview Lecture), Joint Statistical Meetings, Denver, CO |
| August 2019 | “Statistics and the Fair Administration of Justice,” Joint Statistical Meetings, Denver, CO |
| August 2019 | “A Discussion about Conclusion Language - Changes, Trends and Where We Are Heading” (invited panel), International Association for Identification Annual Meeting, Reno, NV |
| October 2019 | NIST-CSAFE Thinkshop on Bitemark Evidence (organizer and participant) |
| September 2020 | “Statistical Approaches for Studying Early-Life Experiences and Their Impact,” Southern California AI & Biomedicine Symposium”, UC Irvine |
| October 2020 | “Forensic Statistics and The Assessment of Probative Value,” 2020 Scientific Association of Forensic Examiners (SAFE) International Conference |
| October 2021 | “Statistical Approaches for Studying Early-Life Experiences and Their Impact,” 5 th Annual Scientific Meeting, Great Plains IDeA-Clinical and Translational Research |
| March 2022 | “Panel on Schools of Computing and Data Science” (invited panel), Haalcioglu Data Science Institute 4 th Anniversary Symposium, University of California, San Diego |
| November 2022 | Keynote Speaker, Bio-Convergence 2030, joint meeting UCI HSSoE and TAU |
| December 2022 | “Statistics and the Fair Administration of Justice: Assessing Bloodstain Pattern Evidence,” 2022 IMS International Conference on Statistics and Data Science, Florence, Italy |
| June 2023 | “Statistics and the Fair Administration of Justice: Assessing Bloodstain Pattern Evidence,” 2023 International Indian Statistical Association (IISA) Conference, Colorado School of Mines |
| June 2023 | “Assess Bloodstain Pattern Evidence,” Center for Statistics and Applications in Forensic Evidence (CSAFE) 2023 All Hands Meeting |
| September 2023 | “A Rose by Any Other Name: Statistics, Machine Learning and Artificial Intelligence,” 75 th Anniversary Distinguished Lecture, Department of Statistics 75 th Anniversary Research Conference, Ames, IA |
| June 2024 | “Framing the Issues,” Communicating Forensic Findings Workshop: Current Practices and Future Directions, National Institute of Standards and Technology, Rockville, MD |

Conference Contributed Papers:

- August 1988 "Maximum Entropy and the Lottery,"
Joint Statistical Meetings, New Orleans, LA
- August 1989 "Distributions on Permutations,"
Joint Statistical Meetings, Washington, DC
- August 1991 "A Posterior Predictive Randomization Test for the Number of Classes
in a Mixture Model," Joint Statistical Meetings, Atlanta, GA
- August 1992 "Testing in Mixture Models Using a Posterior Predictive Check Distribution,"
Joint Statistical Meetings, Boston, MA
- August 1993 "Neural Networks in Applied Statistics,"
Joint Statistical Meetings, San Francisco, CA
- August 1994 "Some Difficulties in Logistic and Probit Regressions,"
Joint Statistical Meetings, Toronto, Canada
- April 1996 "Who's Hot and Who's Not: Runs of Success and Failure in Sports,"
Annual Meeting, Iowa Chapter of the ASA, Mt. Vernon, IA
- August 1998 "Posterior Predictive Sample Size Determination,"
Joint Statistical Meetings, Dallas, TX
- March 2000 "Model Checking for Disease Mapping Models,"
Biometric Society -ENAR, Chicago, IL
- August 2001 "Posterior Predictive Model Checking in Hierarchical Models,"
Joint Statistical Meetings, Atlanta, GA
- June 2002 "Sample Size Calculation for Finding Unseen Species,"
Valencia 7 Conference on Bayesian Statistics, Tenerife, Spain
- May 2004 "Variance Components Analysis of a Multi-Site fMRI Study," (poster)
International Society for Bayesian Analysis, Vina del Mar, Chile
- August 2004 "Variance Components Analysis of a Multi-Site fMRI Study",
Joint Statistical Meetings, Toronto, Canada
- August 2006 "Batter-Pitchier Matchups in Baseball,"
Joint Statistical Meetings, Salt Lake City, UT
- August 2013 Discussant, Session on Statistical Inference in Forensic Statistics
Joint Statistical Meetings, Montreal, Canada
- August 2019 "Forensic Statistics and the Probative Value of Evidence,"
International Association for Identification Annual Meeting, Reno, NV
- August 2022 Discussant, Session on Statistics for Strengthening Inferences from Forensic Evidence
Joint Statistical Meetings, Washington, DC

Invited Department/ Organization Seminars:

- March 1987 Department of Statistics, Pennsylvania State University, University Park, PA
- March 1987 Department of Statistics, Harvard University, Cambridge, MA
- March 1987 Department of Statistics, Rutgers University, New Brunswick, NJ
- October 1987 Department of Statistics, Harvard University, Cambridge, MA
- March 1988 Department of Statistics, University of Connecticut, Storrs, CT
- November 1988 Montreal Statistics Colloquium, Montreal, Quebec, Canada
- October 1989 Department of Biostatistics, Harvard Univ. School of Public Health, Boston, MA
- October 1990 Department of Statistics, Carnegie-Mellon University, Pittsburgh, PA
- October 1990 Department of Statistics, Yale University, New Haven, CT
- October 1990 Department of Mathematics, University of Massachusetts, Lowell, MA
- February 1992 Department of Statistics, University of Pennsylvania, Philadelphia, PA
- October 1992 Department of Mathematics and Statistics, Bowling Green State Univ., Bowling Green, OH
- January 1993 Department of Mathematics, Dartmouth College, Hanover, NH
- November 1993 Institute of Statistics and Decision Sciences, Duke University, Durham, NC

December 1993 Boston Chapter of the ASA, Cambridge, MA
 January 1994 Department of Mathematics, Williams College, Williamstown, MA
 January 1994 Department of Statistics, Iowa State University, Ames, IA
 January 1994 Iowa Stat-er's Seminar, Department of Statistics, Iowa State University, Ames, IA
 February 1994 Graduate School of Business, University of Southern California, Los Angeles, CA
 September 1994 Animal Breeding and Genetics Seminar, Iowa State University, Ames, IA
 October 1994 Department of Biostatistics, School of Public Health, University of Minnesota, Minneapolis, MN
 November 1994 Department of Mathematics and Computer Science, Grinnell College, Grinnell, IA
 April 1995 Department of Statistics, University of Iowa, Iowa City, IA
 May 1995 Department of Statistics, University of Chicago, Chicago, IL
 September 1995 MRC Biostatistics Unit, Institute of Public Health, Cambridge, United Kingdom
 September 1995 Department of Statistics, Trinity College, Dublin, Ireland
 December 1995 Animal Breeding and Genetics Seminar, Iowa State University, Ames, IA
 March 1996 Department of Statistics, Rice University, Houston, TX
 March 1996 Department of Statistical Science, Southern Methodist University, Dallas, TX
 April 1996 Iowa Stat-er's Seminar, Department of Statistics, Iowa State University, Ames, IA
 October 1996 Young Investigator Series, Precollegiate Programs for Talented and Gifted, Iowa State Univ., Ames.
 March 1997 John M. Olin School of Business, Washington University, St. Louis, MO
 March 1997 Department of Statistics, Carnegie-Mellon University, Pittsburgh, PA
 October 1998 Undergraduate Math Club, Iowa State University, Ames, IA
 November 1998 Twin Cities Chapter of the ASA, Bloomington, MN
 February 1999 Department of Statistics and Operations Research, New York University, New York, NY
 April 1999 Department of Statistics, North Carolina State University, Raleigh, NC
 January 2000 RAND Corporation, Santa Monica, CA
 January 2000 Department of Statistics, UCLA, Los Angeles, CA
 February 2000 Science Bound (HS), Iowa State University, Ames, IA
 March 2000 Department of Biostatistics, University of Michigan, Ann Arbor, MI
 May 2000 Washington Statistical Society, Washington, DC
 September 2000 Bioinformatics and Computational Biology Program, Iowa State University, Ames, IA
 October 2000 Department of Statistics, Ohio State University, Columbus, OH
 October 2000 Department of Econometrics and Statistics, Graduate School of Business, University of Chicago, Chicago, IL
 January 2001 RAND Corporation, Washington, DC
 March 2001 School of Nursing and School of Social Work, University of Washington, Seattle, WA
 March 2001 Departments of Statistics and Biostatistics, University of Washington, Seattle, WA
 April 2001 Laurence H. Baker Center for Bioinformatics and Biological Statistics, Iowa State Univ, Ames, IA
 December 2001 Department of Statistics, University of California, Irvine, CA
 December 2001 Division of Biostatistics, University of Minnesota, Minneapolis, MN
 February 2002 Department of Statistics, University of Iowa, Iowa City, IA
 February 2002 Department of Statistics, Iowa State University, Ames, IA
 October 2002 Departments of Statistics and Biostatistics, UCLA, Los Angeles, CA
 February 2003 Department of Statistics, University of California, Riverside, CA
 May 2003 Marshall School of Business, University of Southern California, Los Angeles, CA
 June 2003 Department of Mathematics, University of California, San Diego, CA
 December 2003 IMBS Decisions Group, University of California, Irvine, CA
 February 2004 IMBS Social Dynamics Group, University of California, Irvine, CA
 March 2005 Department of Mathematics, Pomona College, Claremont, CA
 April 2005 Pittsburgh Chapter of the American Statistical Association, Pittsburgh, PA
 May 2005 Applied Mathematics Seminar, Department of Mathematics, University of California, Irvine, CA

June 2005 Commencement Address, Department of Statistics, University of California, Berkeley, CA
 October 2005 Institute of Mathematical Behavioral Science, University of California, Irvine, CA
 March 2006 Department of Statistics, Brigham Young University, Provo, UT
 May 2006 Department of Statistics and Applied Probability, UCSB, Santa Barbara, CA
 June 2006 Continuing Learning Experience, Cal State Univ. Fullerton, CA
 May 2007 Department of Biostatistics, University of California, San Diego, CA
 April 2008 Demography Program, University of California, Irvine, CA
 January 2009 Department of Statistics, Cal Poly, San Luis Obispo, CA
 May 2009 Department of Statistics, University of California, Riverside, CA
 February 2010 Artificial Intelligence / Machine Learning Seminar, University of California, Irvine
 February 2011 UCI Libraries Luncheon, University of California, Irvine, CA
 June 2011 Commencement Address, Department of Statistics, University of California, Los Angeles, CA
 December 2011 Department of Applied and Computational Mathematics and Statistics, Notre Dame University, Notre Dame, IN
 April 2012 Statistical Sciences Group, Los Alamos National Laboratory, Los Alamos, NM
 October 2012 Department of Mathematics – Undergraduate Colloquium, University of California, Irvine, CA
 February 2013 Committee on National Statistics, Irvine, CA
 June 2013 FBI Laboratory, Quantico, VA
 June 2014 Department of Statistics, University of California, Irvine, CA
 October 2014 Data Science Initiative, University of California, Irvine, CA (Kickoff event)
 November 2014 Department of Biostatistics, University of California, San Diego, CA
 January 2017 Center for Statistics and Applications in Forensic Evidence (CSAFE) Webinar
 February 2018 San Diego Chapter of the American Statistical Association, San Diego, CA
 January 2019 “Optimal Covariate Balance for Causal Inference in Observational Studies”,
 Johnson and Johnson, Irvine, CA
 September 2019 “The Role of Data in the Fair Administration of Justice”, Department of Mathematics
 and Statistics, San Diego State University, San Diego, CA
 September 2019 “Feature-Based Analysis of Blood Stain Patterns,” Center for Statistics and
 Applications in Forensic Evidence (CSAFE) Webinar
 September 2019 “The Role of Statistics in Modern Data Analysis,” Panel presentation,
 National Institute of Statistical Science (NISS) Webinar
 January 2020 “Probability, Statistics and the Fair Administration of Justice”, OC Forensic Expert Witness
 Association
 November 2020 “A Statistician Reads the Sports Pages”, UCI Sports Statistics Group, Irvine, CA
 November 2022 Department of Statistics and Operations Research, Tel Aviv University, Israel
 June 2024 Keynote Address, Phi Beta Kappa Induction Ceremony, UC Irvine
 July 2024 “Integrating Data Types to Understand the Impact of Early-Life Experiences,” Special Lecture
 Series, Big Data Training for Cancer Research, UC Irvine