

HAL S. STERN

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Education:

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:

2002 – present	Professor and Chair, Department of Statistics, University of California, Irvine, CA
2007, 2009	Acting Dean, Donald Bren School of Information and Computer Sciences, UC Irvine (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
1996 – 1998	Director of Graduate Studies, 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
1988 – 1994	Director of Undergraduate Studies, Department of Statistics, Harvard University, Cambridge, MA
1987 – 1991	Assistant Professor of Statistics, Harvard University, Cambridge, MA
1984 – present	Statistical consultant
1983 – 1987	Teaching Assistant and Research Assistant, Department of Statistics, Stanford University, Stanford, CA
1981 – 1983	Research Associate, Commodities Corporation, Princeton, NJ

Professional Activities:

2009--	Editor-Elect (Editor 2010-12), Applications & Case Studies, <i>Journal of the American Statistical Association</i>
2009--	Member, National Academy of Sciences Panel on Missing Data in Clinical Trials
2008 –	Member, NIST-NIJ Expert Working Group on Human Factors in Latent Print Analysis, National Institute of Standards and Technology (NIST) and National Institute of Justice (NIJ)
2008 –	Member, Committee on National Statistics (CNSTAT), National Academies of Science-National Research Council
2008 – 2009	Associate Editor, <i>Annals of Applied Statistics</i>
2008--	Member, Fisher Lecture Committee, Council of Presidents of Statistical Societies (COPSS)
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 Initial Symposium, Irvine, CA
2005 –	Associate Editor, <i>Bayesian Analysis</i>
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 – 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 Statistical Association (Fellow)
 Institute of Mathematical Statistics
 International Society for Bayesian Analysis

Referee/reviewer for funding agencies: National Science Foundation, National Security Agency,
 National Institutes of Health

Referee/reviewer for publishers: National Academy of Sciences, Oxford University Press

Referee/reviewer for journals: Science, Journal of the American Statistical Association (JASA), The American Statistician (TAS), Bayesian Analysis, Biometrika, Biometrics, Journal of the Royal Statistical Society (JRSS Ser. B), Applied Statistics (JRSS Ser. C), Statistica Sinica, Journal of Theoretical Probability, Psychometrika, Sankhya, Technometrics, Journal of Educational and Behavioral Statistics (JEBS), Journal of Business and Economic Statistics (JBES), Statistics in Medicine (SIM), International Journal of Biostatistics, Case Studies in Bayesian Statistics, Journal of Statistics Education, Journal of Computational and Graphical Statistics, Journal of Statistical Planning and Inference, Computational Statistics and Data Analysis, Computers and Mathematics with Applications, Mathematical Intelligencer, Sociological Methodology, Management Science, American Journal of Agricultural Economics, Annals of Internal Medicine, Journal of Neuroscience Methods, Journal of Clinical Epidemiology, Psychological Methods, Sociology Methods and Research, Journal of Official Statistics, Statistical Modeling, TEST, Journal of Parallel and Distributed Computing, Journal of Regional Science, Naval Research Logistics, Ecology, Ecological Applications, Journal of Quantitative Analysis in Sports

Honors and Awards:

Teaching Excellence Award (Bren School of ICS), Teaching, Learning and Technology Center, UCI, 2007
 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

Grants:

- July 1991-June 1992 William H. Milton Grant, Harvard University,
Title: A Statistical Analysis of Infant Temperaments, \$3,800
- 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 1996-June 1997 University Research Grant, Iowa State University,
Title: Inference in Longitudinal Studies with Missing Data, \$9,400.
- 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 1998-June 2001 National Institutes of Health,
Title: Disease Maps of Small Areas, \$70,936.
(co-PI with N. Cressie)
- Oct 1998-June 2000 Department of Energy/FBI (Ames Laboratory),
Title: Statistical Treatment of Class Evidence, \$150,936.
(PI with A. Carriquiry, M. Daniels)
- Sept 2000-June 2002 National Center for Health Statistics,
Title: Small Area Estimates of U.S. Infant Mortality Using Bayesian Methods, \$37,691
- 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 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 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)
- 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.)

Books and Publications:

Book:

- Gelman, A., Carlin, J. B., Stern, H. S., and Rubin, D. B., (1995), *Bayesian Data Analysis*, Chapman and Hall: London.
- Gelman, A., Carlin, J. B., Stern, H. S., and Rubin, D. B., (2003), *Bayesian Data Analysis*, 2nd 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.

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. 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 'Boxy' 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), "Bayesian Inference for the Mixed Linear Model with Application to Selection 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 Hoijtink" (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 Genotyping 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. Friedman, L., Stern, H., Brown, G. G., Mathalon, D., Turner, J., Glover, G. H., Gollub, R. L., Lauriello, J., Lim, K.O., Cannon, T., Greve, D. N., Bockholt, H. J., Belger, A., Mueller, B., Doty, M. H., He, J., Wells, W., Smyth, P., Pieper, S., Kim, S., Kubicki, M., Vangel, M., and Potkin, S. G. (2007), "Test-Retest and Between-Site Reliability in a Multicenter fMRI Study," Published online in advance of print, *Human Brain Mapping*.
59. 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.

60. Stern, H. S., and Sugano, A. (2007), "Inference About Batter-Pitcher Matchups in Baseball from Small Samples," in *Statistical Thinking in Sports*, eds. J. Albert and R.H. Koning. Chapman and Hall/CRC: Boca Raton, Chapter 9, 153-165.
61. Stern, H. S., and Sugano, A. (2007), "Baseball Decisions and Small Samples," *CHANCE*, Vol.20, No. 4, 40-47.
62. Patterson, J. V., Hetrick, W. P., Boutros, N. N., Jin, Y., Sandman, C., Stern, H., Potkin, S., Bunney, W. E. (2008), "P50 Sensory Gating Ratios in Schizophrenics and Controls: A Review and Data Analysis," *Psychiatry Research*, Vol. 158, No. 2, 226-247.
63. Friedman, L., Turner, J. A., Stern, H., Mathalon, D. H., Trondsen, L. C., Potkin, S. G. (2008), "Chronic Smoking and the BOLD Response to a Visual Activation Task and a Breath Hold Task in Patients with Schizophrenia and Healthy Controls," *NeuroImage*, Vol. 40, No. 3, 1081-1094.
64. Zhang, H. and Stern, H. (2008), "Inferences for Genotyping Error Rate in Ancestry Identification from SSR Marker Profiles," to appear in *Journal of Agricultural, Biological and Environmental Statistics*.
65. Stern, H. S. (2008), "Pointspread and Odds Betting: Baseball, Basketball, and American Football," in *Handbook of Sports and Lottery Markets*, eds. W. T. Ziemba and D. B. Hausch. North-Holland: Amsterdam. Chapter 11, 223-237.
66. Delfino, R. J., Brummel, S., Wu, J., Stern, H., Ostro, B., Lipsett, M., Winter, A., Street, D. H., Zhang, L., Tjoa, T., Gillen, D. L. (2009), The Relationship of Respiratory and Cardiovascular Hospital Admissions to the Southern California Wildfires of 2003, *Occup Environ Med*, Vol. 66, 187-197.
67. Zhang, H. and Stern, H. (2009), "Sample Size Calculation for Finding Unseen Species," to appear in *Bayesian Analysis*.
68. Scharenbroich, L., Magnusdottir, G., Smyth, P., Stern, H., and Wang, C.-C. (2009), "A Bayesian Framework for Storm Tracking Using a Hidden-State Representation", to appear in *Monthly Weather Review*.

Discussions / Comments:

- 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)

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)

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:

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)

Conference Invited Papers:

April 1986	"On the Probability of Winning A Football Game," TMS/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

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

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
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
January 2009 Department of Statistics, Cal Poly, San Luis Obispo, CA
May 2009 Department of Statistics, University of California, Riverside, CA