

Curriculum Vitae

Andrew Gelman

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Education

Harvard University, 1986–1990. M.A., statistics, 1987. Ph.D., statistics, 1990. Thesis: Topics in image reconstruction for emission tomography. National Science Foundation graduate fellowship.

Massachusetts Institute of Technology, 1982–1986. S.B., mathematics, 1985. S.B., physics, 1986. GPA: 4.9/5.0. Phi Beta Kappa.

Positions

Professor, Department of Statistics, Columbia University, 2000–present.

Professor, Department of Political Science, Columbia University, 2002–present.

Alliance Visiting Professor, Sciences Po, Paris, 2009–2010.

Visiting Professor, Department of Statistics, Harvard University, 2008.

Founding Director, Applied Statistics Center, Columbia University, 2007–present.

Faculty Fellow, Institute for Social and Economic Research and Policy, Columbia University, 1999–present.

Founding Director, Quantitative Methods in Social Sciences program, Columbia University, 1998–2002.

Associate Professor, Department of Statistics, Columbia University, 1996–2000.

Visiting Assistant Professor, Department of Statistics, University of Chicago, 1994.

Assistant Professor, Department of Statistics, University of California, Berkeley, 1990–1996.

Technical Associate, AT&T Bell Laboratories, summers, 1985–1986. Experimental solid state physics research.

Awards

- 2008 Mitchell Prize from the International Society of Bayesian Analysis for “How many people do you know in prison?: using overdispersion in count data to estimate social structure in networks.” (Tian Zheng, Matthew Salganik, and Andrew Gelman)
- 2008 Outstanding Statistical Application award from the American Statistical Association for “How many people do you know in prison?: using overdispersion in count data to estimate social structure in networks.” (Tian Zheng, Matthew Salganik, and Andrew Gelman)
- 2008 Article “Should the Democrats move to the left on economic policy?” chosen for the “Best of the *Annals of Applied Statistics*” session at the Joint Statistical Meetings. (Andrew Gelman and Cexun Jeffrey Cai)
- 2006 Otis Dudley Duncan Honorary Lecture for the American Sociological Association: “Bayesian inference and multilevel modeling.”
- 2004 Miller Prize for the best work appearing in *Political Analysis*, for “Bayesian multilevel estimation with poststratification: state-level estimates from national polls.” (David K. Park, Andrew Gelman, and Joseph Bafumi)
- 2003 Committee of Presidents of Statistical Societies (COPSS) Presidents’ award for outstanding contributions to statistics by a person under the age of 40.
- 2000 Outstanding Statistical Application award from the American Statistical Association for “Not asked and not answered: multiple imputation for multiple surveys.” (Andrew Gelman, Gary King, and Chuanhai Liu)
- 2000 Special Invited Lecture for the Institute of Mathematical Statistics: “Analysis of variance: why it is more important than ever.”
- 1998 Elected Fellow, American Statistical Association.
- 1998 Outstanding Statistical Application award from the American Statistical Association for “Physiological pharmacokinetic analysis using population modeling and informative prior distributions.” (Andrew Gelman, Frederic Y. Bois, and Jiming Jiang)
- 1998 Article “Not asked and not answered: multiple imputation for multiple surveys” chosen as the annual *Journal of the American Statistical Association* special invited discussion paper. (Andrew Gelman, Gary King, and Chuanhai Liu)
- 1998 Article “General methods for monitoring convergence of iterative simulations” chosen for the “Best of *Journal of Computational and Graphical Statistics*” session at the annual Interface meeting. (Stephen Brooks and Andrew Gelman)
- 1997 Elected Fellow, Institute of Mathematical Statistics.
- 1994 National Science Foundation Young Investigator Award.

- 1995 Heinz Eulau Award from the American Political Science Association for the best article published in the *American Political Science Review*, for “Enhancing Democracy Through Legislative Redistricting.” (Andrew Gelman and Gary King)
- 1992 American Political Science Association research software award, for “JudgeIt: a program for evaluating electoral systems and redistricting plans.” (Andrew Gelman and Gary King)
- 1992 Pi Sigma Alpha award for the best paper presented at the annual meeting of the Midwest Political Science Association, for “Why do Presidential election campaign polls vary so much when the vote is so predictable?” (Andrew Gelman and Gary King)

Principal investigator on research grants

- 2009–2012 Department of Energy grant, “Petascale Hierarchical Modeling via Parallel Execution,” (Andrew Gelman, Viral Shah, Alan Edelman, Chad Scherrer)
- 2009–2011 National Security Agency grant, “Weakly informative priors.” (Andrew Gelman)
- 2009–2012 National Science Foundation grant, “Reconstructing climate from tree ring data.” (Andrew Gelman, Matthew Schofield, Upmanu Lall, and Ed Cook)
- 2009–2012 Institute of Education Sciences grant, “Practical Solutions for Missing Data.” (Andrew Gelman and Jennifer Hill)
- 2007–2008 Yahoo research grant, “Purple America.” (Andrew Gelman)
- 2006–2009 National Institutes of Health grant, “Bayesian analysis of serial dilution assays.” (Andrew Gelman, Ginger Chew, and Matt Perzanowski)
- 2005–2008 National Science Foundation grant, “Design and analysis of ‘How many X’s do you know’ surveys for the study of polarization in social networks.” (Andrew Gelman, Tian Zheng, Thomas DiPrete, and Julien Teitler)
- 2003–2006 National Science Foundation grant, “Multilevel modeling for the analysis of public opinion and voting.” (Andrew Gelman)
- 2000–2003 National Science Foundation grant, “Combining expert judgments for environmental risk analysis.” (James Hammitt, Robert Clemen, Andrew Gelman, John Evans, and Roger Cooke)
- 2000–2003 National Science Foundation grant, “Bayesian analysis of sample surveys.” (Andrew Gelman and John B. Carlin)
- 1997–2000 National Science Foundation grant, “Models and model checking for spatially-varying environmental hazards and decision problems.” (Andrew Gelman and Phillip N. Price)
- 1994–1997 National Science Foundation grant, “Using inference from iterative simulation to improve efficiency of simulations.” (Andrew Gelman and Donald B. Rubin)
- 1993–1995 National Science Foundation grant, “Generalizing multiple imputation for a time series of surveys, with application to Presidential election campaign polls and evaluating electoral systems and redistricting plans.” (Gary King and Andrew Gelman)
- 1992–1993 University of California, Berkeley, Junior Faculty Research Grant.
- 1990–1993 National Science Foundation mathematical sciences postdoctoral fellowship.

Books

- 2008 *Red State, Blue State, Rich State, Poor State: Why Americans Vote the Way They Do*. Princeton University Press. (Andrew Gelman, David Park, Boris Shor, Joseph Bafumi, and Jeronimo Cortina). Expanded edition, 2009.
- 2007 *Data Analysis Using Regression and Multilevel/Hierarchical Models*. Cambridge University Press. (Andrew Gelman and Jennifer Hill).
- 2003 *Bayesian Data Analysis*, second edition. London: CRC Press. (Andrew Gelman, John B. Carlin, Hal S. Stern, and Donald B. Rubin).
- 2002 *Teaching Statistics: A Bag of Tricks*. Oxford University Press. (Andrew Gelman and Deborah Nolan).
- 1995 *Bayesian Data Analysis*. London: Chapman and Hall. (Andrew Gelman, John B. Carlin, Hal S. Stern, and Donald B. Rubin).

Books edited

- 2009 *A Quantitative Tour of the Social Sciences*. Cambridge University Press. (ed. Andrew Gelman and Jeronimo Cortina)
- 2004 *Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives*. New York: Wiley. (ed. Andrew Gelman and Xiao-Li Meng)
- 2002 *Case Studies in Bayesian Statistics*, vol. 6. New York: Springer. (ed. Constantine Gatsonis, Robert E. Kass, Alicia Carriquiry, Andrew Gelman, David Higdon, Donna K. Pauler, and Isabella Verdinelli)
- 2002 *Case Studies in Bayesian Statistics*, vol. 5. New York: Springer. (ed. Constantine Gatsonis, Robert E. Kass, Bradley Carlin, Alicia Carriquiry, Andrew Gelman, Isabella Verdinelli, and Mike West)
- 1999 *Case Studies in Bayesian Statistics*, vol. 4. New York: Springer. (ed. Constantine Gatsonis, Robert E. Kass, Bradley Carlin, Alicia Carriquiry, Andrew Gelman, Isabella Verdinelli, and Mike West)

Articles

- 2010 Income inequality and partisan voting in the United States. *Social Science Quarterly*. (Andrew Gelman, Lane Kenworthy, and Yu-Sung Su)
- 2009 Going beyond the book: Toward critical reading in statistics teaching. *Teaching Statistics*. (Andrew Gelman)
- 2009 Bridges between deterministic and probabilistic models for binary data. *Statistical Methodology*. (Andrew Gelman, Iwin Leenen, Iven Van Mechelen, and Paul De Boeck)
- 2009 Multiple imputation with diagnostics (mi) in R: Opening windows into the black box. *Journal of Statistical Software*. (Yu-Sung Su, Andrew Gelman, Jennifer Hill, and Masanao Yajima)

- 2009 Review of *Class War? What Americans Really Think about Economic Inequality*, by Benjamin I. Page and Lawrence R. Jacobs. *Political Science Quarterly*. (Andrew Gelman)
- 2009 Some thoughts on the BUGS package for Bayesian analysis. Discussion of “The BUGS project: evolution, critique and future directions,” by David Lunn, David Spiegelhalter, Andrew Thomas, and Nicky Best. *Statistics in Medicine*. (Andrew Gelman)
- 2009 Bayes, Jeffreys, prior distributions, and the philosophy of statistics. Discussion of “Harold Jeffreys’ Theory of Probability revisited,” by Christian Robert, Nicolas Chopin, and Judith Rousseau. *Statistical Science*. (Andrew Gelman)
- 2009 Economic disparities and life satisfaction in European regions. *Social Indicators Research*. (Maria Grazia Pittau, Roberto Zelli, and Andrew Gelman)
- 2009 What is the probability your vote will make a difference? *Economic Inquiry*. (Andrew Gelman, Nate Silver, and Aaron Edlin)
- 2009 Review of *Mostly Harmless Econometrics*, by Joshua D. Angrist and Jorn-Steffen Pischke. *Stata Journal*. (Andrew Gelman)
- 2009 Correlations and multiple comparisons in functional imaging: a statistical perspective. *Perspectives on Psychological Science*. (Martin Lindquist and Andrew Gelman)
- 2009 Prior distributions for Bayesian data analysis in political science. In *Frontier of Statistical Decision Making and Bayesian Analysis: Essays in Honor of James O. Berger*. (Andrew Gelman)
- 2009 Of beauty, sex, and power: statistical challenges in estimating small effects. *American Scientist*. (Andrew Gelman and David Weakliem)
- 2009 Discussion of “What is statistics,” by Emery Brown and Robert Kass. *American Statistician*. (David Madigan and Andrew Gelman)
- 2009 Beautiful political data. In *Beautiful Data*. O’Reilly Press. (Andrew Gelman, John Kastelec, and Yair Ghitza)
- 2009 Discussion of “Weighting and prediction in sample surveys,” by R. J. Little. *Calcutta Statistical Association Bulletin*. (Andrew Gelman)
- 2009 Adaptively scaling the Metropolis algorithm using expected squared jumped distance. *Statistica Sinica*. (Cristian Pasarica and Andrew Gelman)
- 2009 Splitting a predictor at the upper quarter or third and the lower quarter or third. *American Statistician*. (Andrew Gelman and David Park)
- 2009 Discussion of “Website morphing.” *Marketing Science*, to appear. (Andrew Gelman)
- 2009 Discussion of “Approximate Bayesian inference for latent Gaussian models by using integrated nested Laplace approximations,” by H. Rue, S. Martino and N. Chopin. *Journal of the Royal Statistical Society*. (Andrew Gelman)
- 2008 Review of *Bayesian Methods: A Social and Behavioral Sciences Approach*, by Jeff Gill. *SIAM Review*. (Andrew Gelman)
- 2008 Vote for charity’s sake. *Economist’s Voice* 5 (6), article 6. (Aaron Edlin, Andrew Gelman and Noah Kaplan)

- 2008 The playing field shifts: predicting the seats-votes curve in the 2008 U.S. House election. *PS: Political Science & Politics*. (John Kastellec, Andrew Gelman, and Jamie Chandler)
- 2008 A weakly informative default prior distribution for logistic and other regression models. *Annals of Applied Statistics*. (Andrew Gelman, Aleks Jakulin, Maria Grazia Pittau, and Yu-Sung Su)
- 2008 Teaching Bayesian applied statistics to graduate students in political science, sociology, public health, education, economics, . . . *American Statistician* **62**, 202–205. (Andrew Gelman)
- 2008 Objections to Bayesian statistics (with discussion). *Bayesian Analysis*. (Andrew Gelman)
- 2008 A simple scheme to improve the efficiency of referenda. *Journal of Public Economics*. (Alessandra Casella and Andrew Gelman)
- 2008 Partisans without constraint: political polarization and trends in American public opinion. *American Journal of Sociology*. (Delia Baldassarri and Andrew Gelman)
- 2008 Game theory as ideology: some comments on Robert Axelrod’s “The Evolution of Cooperation.” *QA-Rivista dell’Associazione Rossi-Doria*. (Andrew Gelman)
- 2008 Estimating incumbency advantage and its variation, as an example of a before/after study (with discussion). *Journal of the American Statistical Association*. (Andrew Gelman and Zaiying Huang)
- 2008 Diagnostics for multivariate imputations. *Applied Statistics*. (Kobi Abayomi, Andrew Gelman, and Marc Levy)
- 2008 Yes, it is rational to vote. Refereed article for Mathematics Awareness Month. Joint Policy Board for Mathematics. (Andrew Gelman)
- 2008 Should the Democrats move to the left on economic policy? *Annals of Applied Statistics*. (Andrew Gelman and Cexun Jeffrey Cai)
- 2008 Review of *Why Welfare States Persist*, by Clem Brooks and Jeff Manza. *Political Science Quarterly*. (Andrew Gelman)
- 2008 Predicting and dissecting the seats-votes curve in the 2006 U.S. House election. *PS: Political Science & Politics*. (John Kastellec, Andrew Gelman, and Jamie Chandler)
- 2008 Scaling regression inputs by dividing by two standard deviations. *Statistics in Medicine* **27**, 2865–2873. (Andrew Gelman)
- 2008 Rich state, poor state, red state, blue state: What’s the matter with Connecticut? *Quarterly Journal of Political Science* **2**, 345–367. (Andrew Gelman, Boris Shor, Joseph Bafumi, and David Park)
- 2007 The New York City Puerto Rican asthma project: study design, methods, and baseline results. *Journal of Asthma*. (Luis Acosta, Dolores Acevedo-Garca, Matthew S. Perzanowski, Robert Mellins, Lindsay Rosenfeld, Dharma Cortes, Andrew Gelman, Joanne K. Fagan, Luis A. Bracero, Juan C. Correa, Ann Marie Reardon, and Ginger L. Chew)

- 2007 Thoughts inspired by Nassim Taleb's 'Fooled by Randomness' and 'The Black Swan'. *Law, Probability and Risk*. (Andrew Gelman)
- 2007 Bayesian hierarchical classes analysis. *Psychometrika*. (Iwin Leenen, Iven Van Mechelen, Andrew Gelman, and Stijn De Knop)
- 2007 Using redundant parameters to fit hierarchical models. *Journal of Computational and Graphical Statistics*. (Andrew Gelman, David van Dyk, Zaiying Huang, and W. John Boscardin)
- 2007 Discussion of "Bayesian checking of the second levels of hierarchical models," by M. J. Bayarri and M. E. Castellanos. *Statistical Science*. (Andrew Gelman)
- 2007 Weight loss, self-experimentation, and web trials: a mutual interview. *Chance*. (Andrew Gelman and Seth Roberts)
- 2007 Manipulating and summarizing posterior simulations using random variable objects. *Statistics and Computing* **17**. (Jouni Kerman and Andrew Gelman)
- 2007 A catch-22 in assigning primary delegates. *Chance*. (Howard Wainer and Andrew Gelman)
- 2007 Bayes: radical, liberal, or conservative? *Statistica Sinica* **17**, 422–426. (Andrew Gelman and Aleks Jakulin)
- 2007 Letter to the editors regarding some papers of Dr. Satoshi Kanazawa. *Journal of Theoretical Biology* **245**, 597–599. (Andrew Gelman)
- 2007 Struggles with survey weighting and regression modeling (with discussion). *Statistical Science*. (Andrew Gelman)
- 2007 Average predictive comparisons for models with nonlinearity, interactions, and variance components. *Sociological Methodology* **37**, 23–51.. (Andrew Gelman and Iain Pardoe)
- 2007 Voting as a rational choice: why and how people vote to improve the well-being of others. *Rationality and Society*. (Aaron Edlin, Andrew Gelman, and Noah Kaplan)
- 2007 An analysis of the NYPD's stop-and-frisk policy in the context of claims of racial bias. *Journal of the American Statistical Association*. (Andrew Gelman, Jeffrey Fagan, and Alex Kiss)
- 2007 Evaluation of multilevel decision trees. *Journal of Statistical Planning and Inference* **137**, 1151–1160. (Erwann Rogard, Andrew Gelman, and Hao Lu)
- 2006 Tools for Bayesian data analysis in R. *Statistical Computing and Graphics* **17** (2), 9–13.
- 2006 The difference between "significant" and "not significant" is not itself statistically significant. *American Statistician* **60**, 328–331. (Andrew Gelman and Hal Stern)
- 2006 Review of *Regression Analysis: A Constructive Critique*, by R. Berk. *Criminal Justice Review*. (Andrew Gelman)
- 2006 Weighted classical variogram estimation for data with clustering. *Technometrics*. (Cavan Reilly and Andrew Gelman)

- 2006 Analysis of variance. *New Palgrave Dictionary of Economics*, second edition. (Andrew Gelman)
- 2006 Targeting low-arsenic groundwater with mobile-phone technology in Araihaazar, Bangladesh. *Journal of Health, Population and Nutrition*. (Alexander van Geen, Matilde Trevisani, John Immel, M. Jakariya, N. Osman, Z. Cheng, Alexander Pfaff, Andrew Gelman, and K. M. Ahmed)
- 2006 Bayesian measures of explained variance and pooling in multilevel (hierarchical) models. *Technometrics* **48**, 241–251. (Andrew Gelman and Iain Pardoe)
- 2006 Validation of software for Bayesian models using posterior quantiles. *Journal of Computational and Graphical Statistics*. (Samantha Cook, Andrew Gelman, and Donald B. Rubin)
- 2006 Bayesian data analysis using R. *R News*. (Jouni Kerman and Andrew Gelman)
- 2006 Bayesian software validation. *R News*. (Samantha Cook and Andrew Gelman)
- 2006 Visualization in Bayesian data analysis. In *Handbook of Computational Statistics, vol. III: Data Visualization*. (Jouni Kerman, Andrew Gelman, Tian Zheng, and Yuejing Ding)
- 2006 The boxer, the wrestler, and the coin flip: a paradox of robust Bayesian inference and belief functions. *American Statistician* **60**, 146–150. (Andrew Gelman)
- 2006 Prior distributions for hierarchical variance parameters. *Bayesian Analysis*. (Andrew Gelman)
- 2006 Fuzzy and Bayesian p-values and u-values. Discussion of “Fuzzy and randomized confidence intervals and p-values,” by Charles Geyer and Glenn Meeden. *Statistical Science* **20**. (Andrew Gelman)
- 2006 How many people do you know in prison?: using overdispersion in count data to estimate social structure in networks. *Journal of the American Statistical Association* **101**, 409–423. (Tian Zheng, Matthew Salganik, and Andrew Gelman)
- 2006 Multilevel modeling: what it can and can’t do. *Technometrics* **48**, 241–251. (Andrew Gelman)
- 2005 State-level opinions from national surveys: poststratification using multilevel logistic regression. In *Public Opinion in State Politics*, ed. J. E. Cohen. Stanford University Press. (David K. Park, Andrew Gelman, and Joseph Bafumi)
- 2005 Two-stage regression and multilevel modeling: a commentary. *Political Analysis*. (Andrew Gelman)
- 2005 Anova as a tool for structuring and understanding hierarchical models. Discussion of an article by C. E. McCulloch. *Chance*. (Andrew Gelman)
- 2005 An experimental study of storable votes. *Games and Economic Behavior*. (Alessandra Casella, Andrew Gelman, and Thomas R. Palfrey)
- 2005 Output assessment for Monte Carlo simulations via the score statistic. *Journal of Computational and Graphical Statistics*. (Yanan Fan, Steve Brooks, and Andrew Gelman)

- 2005 R2WinBUGS: a package for running WinBUGS from R. *Journal of Statistical Software* **12** (3). (Sibylle Sturtz, Uwe Ligges, and Andrew Gelman)
- 2005 A course on teaching statistics at the university level. *American Statistician* **59**, 4–7. (Andrew Gelman)
- 2005 Probabilistic feature analysis of facial perception of emotions. *Applied Statistics*. (Michel Meulders, Paul De Boeck, Ivan Van Mechelen, and Andrew Gelman)
- 2005 Practical issues in implementing and understanding Bayesian ideal point estimation. *Political Analysis*. (Joseph Bafumi, Andrew Gelman, David K. Park, and Noah Kaplan)
- 2005 Analysis of variance: why it is more important than ever (with discussion). *Annals of Statistics*. (Andrew Gelman)
- 2005 Should you measure the radon concentration in your home? In *Statistics: A Guide to the Unknown*, fourth edition. (Phillip N. Price and Andrew Gelman)
- 2005 Multiple imputation for model checking: completed-data plots with missing and latent data. *Biometrics*. (Andrew Gelman, Iven Van Mechelen, Geert Verbeke, Daniel F. Heitjan, and Michel Meulders)
- 2004 Reliability of a commercial kit to test groundwater for arsenic in Bangladesh. *Environmental Science and Technology*. (A. van Geen, Z. Cheng, A. A. Seddique, M. A. Hoque, A. Gelman, J. H. Graziano, H. Ahsan, F. Parvez, and K. M. Ahmed)
- 2004 Direct data manipulation for local decision analysis, as applied to the problem of arsenic in drinking water from tube wells in Bangladesh. *Risk Analysis*. (Andrew Gelman, Matilde Trevisani, Hao Lu, and Alexander van Geen)
- 2004 Bayesian multilevel estimation with poststratification: state-level estimates from national polls. *Political Analysis* **12**, 375–385. (David K. Park, Andrew Gelman, and Joseph Bafumi)
- 2004 Treatment effects in before-after data. In *Applied Bayesian Modeling and Causal Inference from Incomplete-data Perspectives*, ed. A. Gelman and X. L. Meng, chapter 18. New York: Wiley. (Andrew Gelman)
- 2004 A broken system: the persistent pattern of reversals of death sentences in the United States. *Journal of Empirical Legal Studies*. (Andrew Gelman, James Liebman, Valerie West, and Alexander Kiss)
- 2004 Using image and curve registration for measuring the goodness of fit of spatial and temporal predictions. *Biometrics*. (Cavan Reilly, Phillip Price, and Andrew Gelman)
- 2004 55,000 residents desperately need your help! *Chance* **17** (2), 28–31. (Andrew Gelman)
- 2004 Standard voting power indexes don't work: an empirical analysis. *British Journal of Political Science*. (Andrew Gelman, Jonathan N. Katz, and Joseph Bafumi)
- 2004 Extension of the isobolographic approach to interactions studies between more than two drugs: illustration with the convulsant interaction between pefloxacin, norfloxacin and theophylline in rats. *Journal of Pharmaceutical Sciences*. (Celine Brochot, William Conet, Andrew Gelman, and Frederic Y. Bois)

- 2004 Bayesian analysis of serial dilution data. *Biometrics*. (Andrew Gelman, Ginger Chew, and Michael Shnaidman)
- 2004 Exploratory data analysis for complex models (with discussion). *Journal of Computational and Graphical Statistics*. (Andrew Gelman)
- 2004 Parameterization and Bayesian modeling. *Journal of the American Statistical Association*. (Andrew Gelman)
- 2004 Empirically evaluating the electoral college. In *Rethinking the Vote: The Politics and Prospects of American Election Reform*, ed. A. N. Crigler, M. R. Just, and E. J. McCaffery, 75–88. Oxford University Press. (Andrew Gelman, Jonathan N. Katz, and Gary King)
- 2003 Forming voting blocs and coalitions as a prisoner’s dilemma: a possible theoretical explanation for political instability. *Contributions to Economic Analysis and Policy* **2** (1), article 13. (Andrew Gelman)
- 2003 A Bayesian formulation of exploratory data analysis and goodness-of-fit testing. *International Statistical Review* **71**, 369–382. (Andrew Gelman)
- 2003 A method for estimating design-based sampling variances for surveys with weighting, post-stratification, and raking. *Journal of Official Statistics* **19**, 133–151. (Hao Lu and Andrew Gelman)
- 2003 Spatial variability of arsenic in 6000 tube wells in a 25 km² area of Bangladesh. *Water Resources Research* **39**, 1140. (Alexander van Geen, Yan Zheng, R. Versteeg, Martin Stute, A. Horneman, R. Dhar, M. Steckler, Andrew Gelman, C. Small, H. Ahsan, Joseph Graziano, I. Hussein, and K. M. Ahmed)
- 2003 A Bayesian approach to the selection and testing of latent class models. *Statistica Sinica* **13**, 423–442. (Johannes Berkhof, Iven Van Mechelen, and Andrew Gelman)
- 2003 Regression modeling and meta-analysis for decision making: a cost-benefit analysis of a incentives in telephone surveys. *Journal of Business and Economic Statistics* **21**, 213–225. (Andrew Gelman, Matt Stevens, and Valerie Chan)
- 2002 The mathematics and statistics of voting power. *Statistical Science* **17**, 420–435. (Andrew Gelman, Jonathan Katz, and Francis Tuerlinckx)
- 2002 You can load a die but you can’t bias a coin. *American Statistician* **56**, 308–311. (Andrew Gelman and Deborah Nolan)
- 2002 Promotion of well-switching to mitigate the arsenic crisis in Bangladesh. *Bulletin of the World Health Organization*. (Alexander van Geen, H. Ahsan, A. Horneman, R. K. Dhar, Yan Zheng, A. Z. M. I. Hussain, K. M. Ahmed, Andrew Gelman, Martin Stute, H. J. Simpson, S. Wallace, C. Small, M. F. Parvez, V. Slavkovich, Nancy J. LoIacono, M. Becker, Z. Cheng, H. Momotaj, M. Shahnewaz, A. A. Seddique, and J. Graziano)
- 2002 Mechanistic understanding of models for educational assessments. Discussion of “On the structure of educational assessments,” by Mislevy et al. *Measurement: Interdisciplinary Research and Perspective* **1**, 73–76. (Andrew Gelman)
- 2002 Let’s practice what we preach: using graphs instead of tables. *American Statistician* **56**, 121–130. (Andrew Gelman, Cristian Pasarica, and Rahul Dodhia)

- 2002 Some statistical sampling and data collection activities. *The Mathematics Teacher* **95**, 688–693. (Andrew Gelman and Deborah Nolan)
- 2002 A class project in survey sampling. *College Teaching* **50**, 151–153. (Andrew Gelman and Deborah Nolan)
- 2002 A probability model for golf putting. *Teaching Statistics*. (Andrew Gelman and Deborah Nolan)
- 2002 Voting, fairness, and political representation (with discussion). *Chance* **15** (3), 22–26. (Andrew Gelman)
- 2001 Using conditional distributions for missing-data imputation. Discussion of “Conditionally specified distributions” by Arnold et al. *Statistical Science* **16**, 268–269. (Andrew Gelman and T. E. Raghunathan)
- 2001 Bayesian inference with probability matrix decomposition models. *Journal of Educational and Behavioral Statistics* **26**, 153–179. (Michel Meulders, Paul De Boeck, Iven Van Mechelen, Andrew Gelman, and Eric Maris)
- 2001 A case study on the choice, interpretation and checking of multilevel models for longitudinal binary outcomes. *Biostatistics* **2**, 397–416. (John B. Carlin, C. Hendricks Brown, Andrew Gelman, and Rory Wolfe)
- 2001 Analysis of large-scale social surveys. In *International Encyclopedia of Social and Behavioral Sciences*, ed. N. J. Smelser and P. B. Baltes, 8386–8392. Oxford University Press. (Elaine Zanutto and Andrew Gelman)
- 2001 Post-stratification without population level information on the post-stratifying variable, with application to political polling. *Journal of the American Statistical Association* **96**, 1–11. (Cavan Reilly, Andrew Gelman, and Jonathan Katz)
- 2001 Models, assumptions, and model checking in ecological regressions. *Journal of the Royal Statistical Society A* **164**, 101–118. (Andrew Gelman, Stephen Ansolabehere, Phillip N. Price, David K. Park, and Lorraine C. Minnite)
- 2001 Poststratification and weighting adjustments. In *Survey Nonresponse*, ed. R. Groves, D. Dillman, J. Eltinge, and R. Little. New York: Wiley. (Andrew Gelman and John B. Carlin)
- 2001 Prior distribution. In *Encyclopedia of Environmetrics*, ed. A. H. El-Shaarawi and W. W. Piegorsch. (Andrew Gelman)
- 2001 Posterior distribution. In *Encyclopedia of Environmetrics*, ed. A. H. El-Shaarawi and W. W. Piegorsch. (Andrew Gelman)
- 2000 Simulation modeling for cost estimation. In *Current Directions in Postal Reform*, ed. M. A. Crew and P. R. Kleindorfer, 171–193. Boston: Kluwer. (Richard Waterman, Donald Rubin, Neal Thomas, and Andrew Gelman)
- 2000 Bayesiaanse variantieanalyse. *Kwantitative Methoden* **21**, 5–12. (Andrew Gelman)
- 2000 Should we take measurements at an intermediate design point? *Biostatistics* **1**, 27–34. (Andrew Gelman)

- 2000 A method for quantifying artifacts in mapping methods, illustrated by application to headbanging. *Statistics in Medicine* **19**, 2309–2320. (Andrew Gelman, Phillip N. Price, and Chia-yu Lin)
- 2000 Type S error rates for classical and Bayesian single and multiple comparison procedures. *Computational Statistics* **15**, 373–390. (Andrew Gelman and Francis Tuerlinckx)
- 2000 Bayesian probabilistic extensions of a deterministic classification model. *Computational Statistics* **15**, 355–371. (Iwin Leenen, Iven Van Mechelen, and Andrew Gelman)
- 2000 Diagnostic checks for discrete-data regression models using posterior predictive simulations. *Applied Statistics* **49**, 247–268. (Andrew Gelman, Yuri Goegebeur, Francis Tuerlinckx, and Iven Van Mechelen)
- 2000 Some class-participation demonstrations for introductory probability and statistics. *Journal of Educational and Behavioral Statistics*. **25**, 84–100. (Andrew Gelman and Mark Glickman)
- 2000 Discussion of “Inference in molecular population genetics,” by M. Stephens and P. Donnelly. *Journal of the Royal Statistical Society B*. (Stephen Brooks and Andrew Gelman)
- 2000 Optimization and simulation transfer algorithms. Discussion of “Optimization transfer using surrogate objective functions,” by K. Lange, D. R. Hunter, and I. Yang. *Journal of Computational and Graphical Statistics*. (Andrew Gelman)
- 1999 Analysis of local decisions using hierarchical modeling, applied to home radon measurement and remediation (with disussion and rejoinder). *Statistical Science* **14**, 305–337. (Chia-Yu Lin, Andrew Gelman, Phillip N. Price, and David H. Krantz)
- 1999 Optimal design for a study of butadiene toxicokinetics in humans. *Toxicological Sciences* **49**, 213–224. (Frederic Y. Bois, Thomas J. Smith, Andrew Gelman, Ho-Yuan Chang, and Andrew E. Smith)
- 1999 Evaluating and using statistical methods in the social sciences. Discussion of “A critique of the Bayesian information criterion,” by D. Weakliem. *Sociological Methods and Research* **27**, 403–410. (Andrew Gelman and Donald B. Rubin)
- 1999 All maps of parameter estimates are misleading. *Statistics in Medicine* **18**, 3221–3234. (Andrew Gelman and Phillip N. Price)
- 1998 Some issues in monitoring convergence of iterative simulations. *Computing Science and Statistics*. (Stephen Brooks and Andrew Gelman)
- 1998 Improving upon probability weighting for household size. *Public Opinion Quarterly* **62**, 398–404. (Andrew Gelman and Thomas C. Little)
- 1998 Generalizing the probability matrix decomposition model: an example of Bayesian model checking and model expansion. In *Assumptions, Robustness, and Estimation Methods in Multivariate Modeling*, ed. J. Hox and E. D. de Leeuw, 1–19. (Michel Meulders, Andrew Gelman, Iven Van Mechelen, and Paul De Boeck)
- 1998 Simulating normalizing constants: from importance sampling to bridge sampling to path sampling. *Statistical Science* **13**, 163–185. (Andrew Gelman and Xiao-Li Meng)

- 1998 General methods for monitoring convergence of iterative simulations. *Journal of Computational and Graphical Statistics* **7**, 434–455. (Stephen Brooks and Andrew Gelman)
- 1998 Modeling differential nonresponse in sample surveys. *Sankhya B* **60**, 101–126. (Thomas C. Little and Andrew Gelman)
- 1998 Not asked and not answered: multiple imputation for multiple surveys (with discussion and rejoinder). *Journal of the American Statistical Association* **93**, 846–874. (Andrew Gelman, Gary King, and Chuanhai Liu)
- 1998 Estimating the probability of events that have never occurred: when is your vote decisive? *Journal of the American Statistical Association* **93**, 1–9. (Andrew Gelman, Gary King, and W. John Boscardin)
- 1998 Some class-participation demonstrations for decision theory and Bayesian statistics. *American Statistician* **52**, 167–174. (Andrew Gelman)
- 1998 Student projects on statistical literacy and the media. *American Statistician* **52**, 160–166. (Andrew Gelman and Deborah Nolan, with Anna Men, Steve Warmerdam, and Michelle Bautista)
- 1998 Markov chain Monte Carlo in practice: a roundtable discussion. *American Statistician* **52**, 93–100. (Robert E. Kass, Bradley P. Carlin, Andrew Gelman, and Radford M. Neal)
- 1998 Discussion of “Quantifying surprise in the data and model verification,” by M. J. Bayarri and J. O. Berger. *Bayesian Statistics 6*. (Xiao-Li Meng and Andrew Gelman)
- 1998 Discussion of “Bayesian projection of the acquired immune deficiency syndrome epidemic,” by D. De Angelis, W. R. Gilks, and N. E. Day. *Journal of the Royal Statistical Society B*. (Andrew Gelman and John B. Carlin)
- 1998 Discussion of “Some algebra and geometry for hierarchical models, applied to diagnostics,” by J. H. Hodges. *Journal of the Royal Statistical Society B*. (Andrew Gelman and Phillip N. Price)
- 1997 Poststratification into many categories using hierarchical logistic regression. *Survey Methodology* **23**, 127–135. (Andrew Gelman and Thomas C. Little)
- 1997 How can statistical theory help with statistical practice? Example of a Bayesian analysis in toxicokinetics. In *Good Statistical Practice. Proceedings of the 12th International Workshop on Statistical Modelling*, ed. C. E. Minder and H. Friedl, 61–70. Wien: Austrian Statistical Society. (Andrew Gelman and Frederic Y. Bois)
- 1997 Using exams for teaching concepts in probability and statistics. *Journal of Educational and Behavioral Statistics* **22**, 237–243. (Andrew Gelman)
- 1997 Weak convergence and optimal scaling of random walk Metropolis algorithms. *Annals of Applied Probability* **7**, 110–120. (Gareth O. Roberts, Andrew Gelman, and Walter R. Gilks)
- 1997 Walking to school and traffic exposure in Australian children. *Australian and New Zealand Journal of Public Health* **21**, 286–292. (John B. Carlin, Mark R. Stevenson, Ian Roberts, Catherine M. Bennett, Andrew Gelman, and Terry Nolan)

- 1997 Discussion of “Analysis of non-randomly censored ordered categorical longitudinal data from analgesic trials,” by L. B. Sheiner, S. L. Beal, and A. Dunne. *Journal of the American Statistical Association*. (Andrew Gelman and Frederic Y. Bois)
- 1997 Discussion of “The EM algorithm—an old folk-song sung to a fast new tune,” by X. L. Meng and D. Van Dyk. *Journal of the Royal Statistical Society B*. (Andrew Gelman)
- 1996 Bayesian analysis of election surveys and forecasts. Discussion of “Probing public opinion: the state of Valencia experience,” by J. Bernardo. In *Case Studies in Bayesian Statistics 3*, ed. C. Gatsonis, J. S. Hodges, R. E. Kass, and N. D. Singpurwalla. (Andrew Gelman)
- 1996 Markov chain Monte Carlo methods in biostatistics. *Statistical Methods in Medical Research* **5**, 339–355. (Andrew Gelman and Donald B. Rubin)
- 1996 Physiological pharmacokinetic analysis using population modeling and informative prior distributions. *Journal of the American Statistical Association* **91**, 1400–1412. (Andrew Gelman, Frederic Y. Bois, and Jiming Jiang)
- 1996 Bayesian prediction of mean indoor radon concentrations for Minnesota counties. *Health Physics* **71**, 922–936. (Phillip N. Price, Anthony V. Nero, and Andrew Gelman)
- 1996 Population toxicokinetics of tetrachloroethylene. *Archives of Toxicology* **70**, 347–355. (Frederic Y. Bois, Andrew Gelman, Jiming Jiang, Don Maszle, and George Alexeef)
- 1996 Posterior predictive assessment of model fitness via realized discrepancies (with discussion and rejoinder). *Statistica Sinica* **6**, 733–807. (Andrew Gelman, Xiao-Li Meng, and Hal S. Stern)
- 1996 Advantages of conflictual redistricting. In *Fixing the Boundaries: Defining and Redefining Single-Member Electoral Districts*, ed. I. McLean and D. Butler. Aldershot, England: Dartmouth Publishing Company, 207–217. (Andrew Gelman and Gary King)
- 1996 Bayesian model-building by pure thought: some principles and examples. *Statistica Sinica* **6**, 215–232. (Andrew Gelman)
- 1996 Bayesian regression with parametric models for heteroscedasticity. *Advances in Econometrics* **11**, A87–109. (W. John Boscardin and Andrew Gelman)
- 1996 Efficient Metropolis jumping rules. In *Bayesian Statistics 5*, ed. J. Bernardo et al., 599–607. Oxford University Press. (Andrew Gelman, Gareth O. Roberts, and Walter R. Gilks)
- 1996 Discussion of “Hierarchical generalized linear models,” by Y. Lee and J. A. Nelder. *Journal of the Royal Statistical Society B*. (Andrew Gelman)
- 1995 Avoiding model selection in Bayesian social research. Discussion of “Bayesian model selection in social research,” by A. Raftery. *Sociological Methodology 1995*, 165–173. (Andrew Gelman and Donald B. Rubin)
- 1995 Pre-election survey methodology: details from nine polling organizations, 1988 and 1992. *Public Opinion Quarterly* **59**, 98–132. (D. Stephen Voss, Andrew Gelman, and Gary King)
- 1995 Method of moments using Monte Carlo simulation. *Journal of Computational and Graphical Statistics* **3**, 36–54. (Andrew Gelman)

- 1995 Inference and monitoring convergence. In *Practical Markov Chain Monte Carlo*, ed. W. Gilks, S. Richardson, and D. Spiegelhalter, 131–143. London: Chapman and Hall. (Andrew Gelman)
- 1995 Model checking and model improvement. In *Practical Markov Chain Monte Carlo*, ed. W. Gilks, S. Richardson, and D. Spiegelhalter, 189–201. London: Chapman and Hall. (Andrew Gelman and Xiao-Li Meng)
- 1995 Racial fairness in legislative redistricting. In *Classifying by Race*, ed. P. E. Peterson, 85–110. Princeton University Press. (Gary King, John M. Bruce, and Andrew Gelman)
- 1995 Review of *Handbook of Statistical Modeling for the Social and Behavioral Sciences*, ed. G. Arminger, C. C. Clogg, and M. E. Sobel. *Contemporary Sociology* **24** 712–714. (Andrew Gelman)
- 1995 Discussion of “Fractional Bayes factors for model comparison,” by A. O’Hagan. *Journal of the Royal Statistical Society B* **57**, 131. (Andrew Gelman and Xiao-Li Meng)
- 1995 Discussion of “Assessment and propagation of model uncertainty,” by D. Draper. *Journal of the Royal Statistical Society B* **57**, 83. (Andrew Gelman and Xiao-Li Meng)
- 1994 Enhancing democracy through legislative redistricting. *American Political Science Review* **88**, 541–559. (Andrew Gelman and Gary King)
- 1994 Party competition and media messages in U.S. Presidential elections. In *The Parties Respond*, second edition, ed. L. S. Maisel, 255–195. Westview Press. (Andrew Gelman and Gary King)
- 1994 A unified model for evaluating electoral systems and redistricting plans. *American Journal of Political Science* **38**, 514–554. (Andrew Gelman and Gary King)
- 1994 Discussion of “A probabilistic model for the spatial distribution of party support in multiparty elections,” by S. Merrill. *Journal of the American Statistical Association* **89**, 1198. (Andrew Gelman)
- 1994 Discussion of “Approximate Bayesian inference and the weighted likelihood bootstrap,” by M. A. Newton and A. E. Raftery. *Journal of the Royal Statistical Society B* **56**, 37. (Andrew Gelman)
- 1993 Why are American Presidential election campaign polls so variable when votes are so predictable? *British Journal of Political Science* **23**, 409–451. (Andrew Gelman and Gary King)
- 1993 Characterizing a joint probability distribution by conditionals. *Journal of the Royal Statistical Society B* **55**, 185–188. (Andrew Gelman and T. P. Speed)
- 1993 Assessing uncertainty in backprojection. Discussion of “Backcalculation of HIV infection rates,” by P. Bacchetti, M. R. Segal, and N. P. Jewell. *Statistical Science* **8**, 104–106. (with John B. Carlin) (John B. Carlin and Andrew Gelman)
- 1993 Review of *Forecasting Elections*, by M. S. Lewis-Beck and T. W. Rice. *Public Opinion Quarterly* **57**, 119–121. (Andrew Gelman)
- 1993 Discussion of “Bayesian computation via the Gibbs sampler and related Markov chain methods,” by A. F. M. Smith and G. O. Roberts. *Journal of the Royal Statistical Society B* **55**, 73. (Andrew Gelman and Donald B. Rubin)

- 1992 Inference from iterative simulation using multiple sequences (with discussion and rejoinder). *Statistical Science* **7**, 457–511. (Andrew Gelman and Donald B. Rubin)
- 1992 Iterative and non-iterative simulation algorithms. *Computing Science and Statistics* **24**, 433–438. (Andrew Gelman)
- 1992 A single series from the Gibbs sampler provides a false sense of security. In *Bayesian Statistics 4*, ed. J. Bernardo et al., 625–631. Oxford University Press. (Andrew Gelman and Donald B. Rubin)
- 1992 Discussion of “Evaluating the accuracy of sampling-based approaches to the calculation of posterior moments,” by J. Geweke. In *Bayesian Statistics 4*, ed. J. Bernardo et al., 190. Oxford University Press. (Andrew Gelman and Donald B. Rubin)
- 1992 Discussion of “Maximum entropy and the nearly black object,” by D. L. Donoho et al. *Journal of the Royal Statistical Society B* **54**, 72–73. (Andrew Gelman)
- 1991 The precision of positron emission tomography: theory and measurement. *Journal of Cerebral Blood Flow and Metabolism* **11**, A26–30. (Nathaniel Alpert, W. C. Barker, A. Gelman, S. Weise, M. Senda, and J. A. Correia)
- 1991 A note on bivariate distributions that are conditionally normal. *American Statistician* **45**, 125–126. (Andrew Gelman and Xiao-Li Meng)
- 1991 Systemic consequences of incumbency advantage in U.S. House elections. *American Journal of Political Science* **35**, 110–138. (Gary King and Andrew Gelman)
- 1990 Estimating incumbency advantage without bias. *American Journal of Political Science* **34**, 1142–1164. (Andrew Gelman and Gary King)
- 1990 Estimating the electoral consequences of legislative redistricting. *Journal of the American Statistical Association* **85**, 274–282. (Andrew Gelman and Gary King)
- 1990 Discussion of “A smoothed EM approach to indirect estimation problems, with particular reference to stereology and emission tomography,” by B. W. Silverman et al. *Journal of the Royal Statistical Society B* **52**, 314–315. (Andrew Gelman)
- 1989 Electoral responsiveness in U.S. Congressional elections, 1946–1986 (abstract). *Proceedings of the Social Statistics Section, American Statistical Association*, 208. (Andrew Gelman and Gary King)
- 1989 Constrained maximum entropy methods in an image reconstruction problem. In *Maximum Entropy and Bayesian Methods*, ed. J. Skilling, 429–435. Kluwer Academic Publishers. (Andrew Gelman)
- 1987 Subboundary-free zone-melt recrystallization of thin-film silicon. *Applied Physics Letters* **51**, 1256–1258. (Loren Pfeiffer, Andrew Gelman, K. A. Jackson, K. W. West, and J. L. Batstone)
- 1987 Growth mechanisms during thin film crystallization from the melt. *Materials Research Society Symposium Proceedings* **74**, 543–553. (Loren Pfeiffer, Andrew Gelman, K. A. Jackson, and K. W. West)
- 1986 Undercooling of a thin silicon film crystallizing from the melt. Unpublished. (Andrew Gelman, Loren Pfeiffer, G. Gilmer, K. A. Jackson, and K. W. West)

- 1986 Reduced subboundary misalignment in SOI films scanned at low velocities. *Materials Research Society Symposium Proceedings* **53**, 29–37. (Loren Pfeiffer, K. W. West, D. C. Joy, J. M. Gibson, and A. Gelman)
- 1984 The effects of solar flares on single event upset rates. *IEEE Transactions on Nuclear Science and Radiation Effects* **NS-31**, 1212–1216. (James H. Adams, Jr., and Andrew Gelman)

Public software

- 2008–2009 **mi**: an R package for missing data imputation. (Andrew Gelman, Jennifer Hill, Masanao Yajima, and Yu-Sung Su)
- 2007–2009 **arm**: an R package for applied regression and multilevel modeling. (Andrew Gelman, Jennifer Hill, Maria Grazia Pittau, and Yu-Sung Su)
- 2002–2005 **R2WinBUGS**: functions for running Bugs from R. (Andrew Gelman, Sibylle Sturtz, and Uwe Ligges)
- 1992–2008 **Judgeit**: a program for evaluating electoral systems and redistricting plans. (Andrew Gelman, Gary King, and Andrew Thomas)
- 1991–1995 **itsim**: functions for inference for iterative simulation. (Andrew Gelman, Donald Rubin, and Stephen Brooks)

Short courses and lecture series taught

- Practical Bayesian analysis of sample surveys. Center for Disease Control and Prevention, Atlanta, 2008.
- Bayesian statistics. Basel Statistical Society, Switzerland, 2007.
- Multilevel regression. New York City Department of Health, 2005.
- Bayesian data analysis using Bugs and R. Joint Program in Survey Methodology, University of Maryland, 2003, 2005, 2008. Robert Wood Johnson Health and Society Scholars, New York, 2006.
- Bayesian statistics. Universidad Autonoma de Madrid, Spain, 2002.
- Bayesian biostatistics. Mexican Workshop on Bayesian Statistics, Mexico City, 1999.
- Bayesian data analysis. Educational Testing Service, Princeton, New Jersey, 1998–1999.
- Bayesian statistics and Markov chain Monte Carlo. Summer School at Aalborg, Denmark, 1998.
- Bayesian data analysis. American Statistical Association meeting, Anaheim, California, 1997.
- Bayesian statistics and Markov chain Monte Carlo. Summer School at Padova, Italy, 1997.
- Bayesian data analysis. American Statistical Association meeting, Chicago, Illinois, 1996.

Invited conference presentations

Some problems in network analysis. Workshop on networks at Radcliffe Institute, Cambridge, Massachusetts, 2009.

Weakly informative priors. UseR conference, Dortmund, Germany, 2008.

Should the Democrats move to the left on economic policy? Joint Statistical Meetings, Denver, Colorado, 2008.

Learning about social and political polarization using “How many X’s do you know” surveys. Workshop on social networks at Nuffield College, Oxford, 2007.

Weakly informative priors. Workshop on Monte Carlo methods, Cambridge, Massachusetts, 2007.

Some thoughts on multiple comparisons. Meeting on multiple comparisons at the Institute of Education Services, Washington, D.C., 2007.

Bayesian inference and multilevel modeling. American Sociological Association meeting, Montreal, Canada, 2006.

Learning about social and political polarization using “How many X’s do you know” surveys. American Political Science Association meeting, Washington, D.C., 2005.

Interactions in multilevel models. Joint Statistical Meetings, Minneapolis, Minnesota, 2005.

Teaching statistics: a bag of tricks. Workshop on teaching quantitative political science, Northampton, Massachusetts, 2005.

Toward an environment for Bayesian data analysis in R. Joint Statistical Meetings, Toronto, Canada, 2004.

Survey weighting and hierarchical regression. Joint Statistical Meetings, Toronto, Canada, 2004.

Computation for Bayesian data analysis. Joint Statistical Meetings, Toronto, Canada, 2004.

Struggles (and some solutions) in statistical computing. Joint Statistical Meetings, San Francisco, California, 2003.

Parameterization and modeling. First Cape Cod Workshop on Monte Carlo Methods, Hyannis, Massachusetts, 2002.

Bayesian exploratory data analysis. Seventh Valencia meeting on Bayesian Statistics, Spain, 2002.

Probability modeling and Markov chain Monte Carlo. Neural Information Processing Society meeting, Denver, Colorado, 2000.

Gibbs sampling as a way of life. American Statistical Association meeting, Indianapolis, Indiana, 2000.

Analysis of variance: why it is more important than ever. Institute of Mathematical Statistics meeting, Chicago, Illinois, 2000.

Models, assumptions, and model checking in ecological regressions. Royal Statistical Society workshop on disease clustering and epidemiology, London, England, 1999.

Weighting and poststratification. International Workshop on Survey Nonresponse, Portland, Oregon, 1999.

Interpreting statistical graphics as model checking. Joint Statistical Meetings, Baltimore, Maryland, 1999.

Using dynamic weighting to optimize proposal distributions for the Metropolis algorithm. Joint Statistical Meetings, Baltimore, Maryland, 1999.

OK, we've fit a pharmacokinetic model. Now how can we understand it? Biomedical Simulations Resource Center workshop on pharmacokinetics and pharmacodynamics, Marina del Rey, California, 1999.

Bayesian data analysis. Psychometric Society meeting, Lawrence, Kansas, 1999.

Not asked and not answered: multiple imputation for multiple surveys. American Statistical Association meeting, Dallas, Texas, 1998.

Exploratory data analysis for complex models. 50th anniversary meeting, Iowa State University Statistics Department, Ames, Iowa, 1997.

Roundtable discussion on Markov chain Monte Carlo methods. Joint Statistical Meetings, Anaheim, California, 1997.

How can statistical theory help with statistical practice? Example of a Bayesian analysis in toxicokinetics. International Workshop on Statistical Modelling, Biel/Bienne, Switzerland, 1997.

Constructing complex models for Bayesian inference. Dutch Society for Statistics and Operational Research meeting, Utrecht, Netherlands, 1997.

Bayesian data analysis with discrete data and discrete-parameter models. Dutch Classification Society meeting, Arnhem, Netherlands, 1997.

Complex scientific and statistical models. International Society for Bayesian Analysis meeting, Chicago, Illinois, 1996.

Path sampling for computing normalizing constants and marginal distributions. American Mathematical Society conference on stochastic inference, Monte Carlo and empirical methods, South Hadley, Massachusetts, 1996.

Discussion of "Probing Public Opinion: the State of Valencia Experience." Third Workshop on Case Studies in Bayesian Statistics in Science and Technology, Carnegie Mellon University, Pittsburgh, Pennsylvania, 1995.

Enhancing democracy through legislative redistricting. Conference on Boundary Determination in the UK Parliament, Nuffield College, Oxford, England, 1995.

Bayesian computation. National Science Foundation symposium on simulation and estimation, University of California, Berkeley, 1994.

Inference from iterative simulation. Australian Statistical Meeting, Melbourne, Australia, 1994.

Path sampling: a continuous version of bridge sampling. Institute of Mathematical Statistics meeting, Los Angeles, California, 1994.

Enhancing democracy through legislative redistricting. Hendricks Symposium on Legislative Redistricting, University of Nebraska, Lincoln, 1994.

Redistricting and responsiveness. Midwest Political Science Association meeting, Chicago, Illinois, 1993.

Recent work on using parallel series to draw inferences from iterative simulation. Purdue Symposium on Statistical Decision Theory and Related Topics, West Lafayette, Indiana, 1992.

Probability models and smoothing for images. Institute of Mathematical Statistics meeting, Cincinnati, Ohio, 1992.

Inference from iterative simulation. Statistics and Computer Science Interface Meeting, College Station, Texas, 1992.

Testing goodness-of-fit for tomography models. Mathematical Sciences Research Institute symposium, Berkeley, California, 1991.

Spatial structure and image reconstruction. The Institute of Management Sciences meeting on stochastic processes, Monterey, California, 1991.

Statistics and political science. American Political Science Association meeting, San Francisco, California, 1990.

Also presented invited talks at Academia Sinica, AgroParisTech, Bell Laboratories, Boston University, Brown University, California Institute of Technology, California State University, Carnegie Mellon University, Cato Institute, Centers for Disease Control and Prevention, City University of New York, Columbia University, Duke University, Educational Testing Service, Genentech Corporation, George Mason University, George Washington University, Google, Harvard University, Johns Hopkins University, Massachusetts Institute of Technology, Medical University of South Carolina, National Chiao-Tung University, National Institute of Standards and Technology, Naval Postgraduate School, New America Foundation, New Jersey Institute of Technology, New York University, Northwestern University, Oxford University, Pfizer, Princeton University, Rand Corporation, Rutgers University, Smith College, Stanford University, Swarthmore College, Temple University, Tilburg University, Tufts University, University of Bath, University of California (Berkeley, Irvine, Los Angeles, and Santa Barbara), University of Chicago, University of Leuven, University of Maryland, University of Michigan, University of Pennsylvania, University of Rochester, University of Toronto, University of Washington, U.S. Census Bureau, Wyeth Pharmaceuticals, and Yale University.

Courses taught

Introduction to Probability and Statistics

Sample Surveys

Decision Analysis

Statistical Consulting

Statistical Modeling and Data Analysis I, II

Bayesian Statistics

Quantitative Methods in Social Sciences

Multilevel Modeling

Teaching Statistics at the University Level

Applied Regression and Multilevel Modeling

Research in Quantitative Political Science

Research in Bayesian Statistics

Statistical Computing

Editorial boards of journals

Journal of the American Statistical Association, 1997–2001

Chance, 1998–present

Journal of Educational and Behavioral Statistics, 1997–present

Journal of Statistical Planning and Inference, 2001–present

Medical Decision Making, 2002–present

Statistica Sinica, 2005–present

Sociological Methodology, 2006–present

Biometrika, 2006–present

Annals of Applied Statistics, 2006–present

Political Analysis, 2007–present

Other

Refereed articles in probability and statistics for *Advances and Applications in Statistics*, *Annals of Applied Probability*, *Annals of the Institute of Statistical Mathematics*, *Annals of Statistics*, *Artificial Intelligence Journal*, *Australian Journal of Statistics*, *Automatica*, *Biometrical Journal*, *Biometrics*, *Biometrika*, *BMC Medical Research Methodology*, *Canadian Journal of Statistics*, *Journal of the American Statistical Association* (Applications, Theory & Methods, and General sections), *Communications in Statistics*, *Computational Statistics and Data Analysis*, *IEEE International Symposium on Information Theory*, *IEEE Transactions*, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *International Statistical Review*, *Journal of Business and Economic Statistics*, *Journal of Computational and Graphical Statistics*, *Journal of Educational and Behavioral Statistics*, *Journal of the Royal Statistical Society* (Series A and B), *Journal of Statistical Planning and Inference*, *Journal of Zhejiang University Science*, *Lifetime Data Analysis*, *Measurement Science and Technology*, *Metron*, *Pakistan Journal of Statistics*, *Probability in the Engineering and Information Sciences*, *Psychometrika*, *R News*, *Sankhya*, *Scandinavian Journal of Statistics*, *SIAM Journal on Applied Mathematics*, *Sociological Methodology*, *Sociological Methods and Research*, *Statistica Sinica*, *Statistical Modelling*, *Statistical Papers*, *Statistical Science*, *Statistics and Computing*, *Statistics and Probability Letters*, *Statistics in Medicine*, *Stochastics*, *Technometrics*, and *Test*.

Refereed articles in applied fields for the *American Economic Review*, *American Journal of Political Science*, *American Journal of Public Health*, *American Political Science Review*, *Annals of Emergency Medicine*, *Applied Economics Research Bulletin*, *BMC Medical Informatics and Decision Making*, *BMC Medical Research Methodology*, *British Journal of Mathematical and Statistical Psychology*, *British Journal of Political Science*, *Chest*, *Clinical Infectious Diseases*, *Comparative Political Science*, *Developmental Psychology*, *Ecology*, *Ecological Applications*, *Economic Theory*, *Educational Evaluation and Policy Analysis*, *Electoral Studies*, *Environmental Modelling and Software*, *Epidemiology*, *European Journal of Political Economy*, *Geographical Analysis*, *Geographical and Environmental Modelling*, *IEEE Transactions on Medical Imaging*, *International Journal of Forecasting*, *International Journal of Psychiatry in Medicine*, *Journal of Clinical Epidemiology*, *Journal of Clinical Investigation*, *Journal of Economic Behavior and Organization*, *Journal of Human Development*, *Journal of Pharmacokinetics and Pharmacodynamics*, *Journal of Political Economy*, *Journal of Politics*, *Journal of Population Research*, *Journal of Stochastic Environmental Research and Risk Assessment*, *Journal of Theoretical Biology*, *Journal of Theoretical Politics*, *Legislative Studies Quarterly*, *Management Science*, *Marine and Freshwater Research*, *Mathematical Psychology*, *Organizational Research Methods*, *Pharmaceutical Statistics*, *Political Analysis*, *Political Behavior*, *Political Research Quarterly*, *Proceedings of the National Academy of Sciences*, *Psychological Methods*, *Public Opinion Quarterly*, *Quarterly Journal of Political Science*, *Rationality and Society*, *Risk Analysis*, *Science*, *Social Problems*, *State Politics and Policy Quarterly*, *Theory and Decision*, *Trials*, *World Politics*, and *Zeitschrift fur Psychologie*.

Reviewed research proposals or served on review panels for the *Australian Research Council*, *Canada Foundation for Innovation*, *Hong Kong Research Council*, *Israel Science Foundation*, *Natural Sciences and Engineering Research Council of Canada*, *U.K. Economic and Social Research Council*, *U.S. Environmental Protection Agency*, *U.S. Geological Survey*, *U.S. Institute for Education Sciences*, *U.S. National Institutes of Health*, *U.S. National Research Council*, *U.S. National Security Agency*, *U.S. National Science Foundation*, and *Wellcome Trust*.

Served on advisory panel for New York City Social Indicators Survey, School of Social Work, Columbia University.

Served on advisory panel for Columbia University Superfund Basic Research Program, Health Effects and Geochemistry of Arsenic and Lead.

Served on National Academy of Sciences Panel on Improving Data to Analyze Food and Nutrition Policies.

Senior Advisor for Columbia University Center on Integrative Developmental Science.

Consulted for various organizations including Alcoholics Anonymous, American Civil Liberties Union, Associated Press, Council on Accreditation for Children and Family Services, Intertek, Museum of Modern Art, New York City Department of Health, New York State Attorney General's Office, U.S. Postal Service, and Voter News Service.

Research blog, Statistical Modeling, Causal Inference, and Social Science, since 2004, <http://www.stat.columbia.edu/~gelman/blog/>