

Department of Statistics
University of California, Irvine
2206 Bren Hall
Irvine, California 92697-1250

dvd@ics.uci.edu
<http://www.ics.uci.edu/~dvd>
Phone: 949 824 5679
FAX: 949 824 9863

EDUCATION

Doctor of Philosophy, 1995, University of Chicago (Statistics).

Thesis: *Construction, implementation, and theory of algorithms based on data augmentation and model reduction*, under the supervision of Professor Xiao-Li Meng.

Bachelor of Science, 1991, Michigan State University (Statistics and Probability).
Graduated from the Honors College with High Honors.

PROFESSIONAL
EXPERIENCE

Chair, Department of Statistics, University of California, Irvine, 7/10 – present.

Professor, Department of Statistics, University of California, Irvine, 7/05 – present.

Visiting Professor, Department of Statistics, Chinese University of Hong Kong, 1/10
– 4/10.

Acting Chair, Department of Statistics, University of California, Irvine, 10/07 – 12/07
and 12/08 – 04/09.

Visiting Scholar, Department of Statistics, Columbia University, 06/06 – 08/06.

Associate Professor, Department of Statistics, University of California, Irvine, 7/03 –
6/05.

Associate Professor, Department of Statistics, Harvard University, 7/00 – 6/03.

Assistant Professor, Department of Statistics, Harvard University, 7/96 – 6/00.

Assistant Professor, Department of Mathematics, Kalamazoo College, 9/95 – 6/96.

HONORS AND
AWARDS

Elected Fellow of the Institute of Mathematical Statistics, August 2010.

Bren School of Information and Computer Sciences Dean's Award for Excellence in
Mid-Career Research, March 2010.

Bren School of Information and Computer Sciences Dean's Award for Service, March
2008.

Elected Fellow of the American Statistical Association, August 2006.

Elected Editor of the *Journal of Computational and Graphical Statistics*, 2006 – 2009.

Research Fellow, SAMSI Program on Astrostatistics, Research Triangle Park, North
Carolina, 1/06 – 6/06.

Invited Presenter at Case Studies in Bayesian Statistics VII, Pittsburgh, PA, Septem-
ber 2003.

Invited Speaker in a session to honor the best contributions to the *Journal of Compu-
tational and Graphical Statistics* at *Interface 2000*, New Orleans, LA, April 2000.

Invited to read before the Royal Statistical Society Research Section, London, Decem-
ber 1996.

Named the Kalamazoo College MacArthur Scholar, 9/95 – 8/96. and Mortar Board.

GRANTS AND
FELLOWSHIPS

- US Department of Education–Institute for Education Sciences, Co-Investigator, *A Cognitive Strategies Approach to Reading and Writing Instruction for Secondary English Language Learners*, with Carol Booth Olson (PI) and collaborators, \$2,961,508, 7/11 – 6/15 (pending).
- National Aeronautics and Space Administration, Co-Investigator, *New Leverage on Stellar Evolution: NASA Archives and Bayes* with Ted von Hippel (PI, Siena College), Mike Montgomery (Texas, Austin), and Ata Sarajedini (Florida, Gainesville), NASA-xxx for \$ 391,574, 1/11 – 12/13 (pending final budget).
- National Science Foundation, Principal Investigator at Lead Institution, *Collaborative Research: New MCMC-Enabled Bayesian Methods for Complex Data and Computer Models Applied in Astronomy* with Xiao-Li Meng (Harvard) and Yaming Yu, DMS-0907522 and DMS-0907185 for \$853,426, 7/09 – 6/12.
- National Aeronautics and Space Administration, Co-Investigator, *Developing Methods to Incorporate Calibration Uncertainties in Data Analysis* with Vinay Kashyap (PI, Harvard-Smithsonian Center for Astrophysics) and collaborators, NASA AISRP-NNG06GF17G for \$ 300,000, 7/06 – 6/09.
- US Department of Education–Institute for Education Sciences, Co-Investigator, *The Pathway Project: A Cognitive Strategies Approach to Reading and Writing Instruction for Teachers of ELLs*, with Carol Booth Olson (PI) and collaborators, \$2,942,841, 06/06 – 05/11.
- National Science Foundation, Principal Investigator at Lead Institution, *Collaborative Research: Generalized Propensity Score Methods* with Donald Rubin (Harvard), Kosuke Imai (Princeton), and James Kim, SES-0550980, SES-0550873, and SES-0550887 for \$460,000, 4/06 – 3/11.
- National Science Foundation, Principal Investigator at Lead Institution, *Collaborative Research: Highly Structured Models and Statistical Computation in High Energy Astrophysics*, with Xiao-Li Meng (Harvard), DMS-04-06085 and DMS-04-05953 for \$593,538, 8/04 – 7/08.
- Ted & Janice Smith ICS Endowment at UC, Irvine, *Generalized Propensity Score Methods*, Seed Funding for \$5,000, 7/04 – 6/05.
- National Science Foundation, Principal Investigator, *Efficient Computation in Multi-level Models*, with Jun Liu, DMS-01-04129 for \$452,914, 7/01 – 6/05. Transferred from Harvard University to University of California, Irvine, DMS-04-38240 for \$152,025, 8/03–6/05.
- The Chandra X-ray Center and NASA grant NAS8-39073, contracts to support statistics graduate students in *The California-Harvard AstroStatistics Collaboration* for \$153,093, 7/98–7/04.
- National Science Foundation, Co-Principal Investigator *Inference and Computation in Multi-Level Models*, with Carl Morris, DMS-97-05157 for \$241,332, 7/97 – 6/00.
- While Attending the University of Chicago: U.S. Department of Education National Needs Fellow, 9/91 – 6/95 and McCormick Fellow, 9/91 – 6/94.

SYNERGISTIC
ACTIVITIES

The California-Boston Astro-Statistics (C-BAS) Collaboration, Coordinator, 9/97–present.

A forum for discussion of outstanding statistical problems in Astrophysics. Goals include developing several papers on the interface of statistics and astronomy and incorporating state-of-the-art statistical methods into the Chandra Interactive Analysis of Observations software. Members include faculty, researchers, graduate and undergraduate students in Astrophysics and Statistics.

(URL: www.ics.uci.edu/~dvd/astrostat.html)

Causal Inference in Public Policy Analysis Working Group.

This group is involved in a number of studies that involve the design and analysis of experiments and observational studies aimed to evaluate public policy proposals, especially in elementary and secondary education. Sophisticated causal methods are developed and implemented to account for imperfect designs and typically widespread non-compliance.

U.S. Decennial Census Research Group, Participant, 5/97–8/02.

This group gives statistical researchers at the U.S. Bureau of the Census and various universities an opportunity to work collaboratively on outstanding problems involved with the census including use of administrative records, substitute sampling, dealing with influential observations, etc. The group has produced numerous papers and internal documents at the U.S. Bureau of the Census and includes faculty, researchers, and graduate students.

EDITORIAL
SERVICE

Journal of Computational and Graphical Statistics, Associate Editor, 9/00 – 4/06 and 4/11 – present.

Neural Information Processing Systems (NIPS) Foundation, Conference Referee, 2010.

Journal of Computational and Graphical Statistics, Editor-Elect, 5/06 – 12/06; Editor, 1/07 – 12/09; Past-Editor, 1/10 – 3/11.

Statistical Science, Guest Co-Editor for Special Issue Commemorating the 30th Anniversary of the EM Algorithm, 1/07 – present.

Statistica Sinica, Associate Editor, 9/05 – 4/10.

Journal of the American Statistical Association, Associate Editor, 2/04 – 6/06.

National Science Foundation, Member of Review Panel (*Division of Mathematical Sciences: Statistics*), January 2007.

National Science Foundation, Member of Review Panel (*Division of Mathematical Sciences: Innovations at the Interface with the Sciences and Engineering*), May 2005.

Reviewed hundreds of articles, grant proposals, and books for *The American Statistician*, *The Annals of Statistics*, *The Astronomical Journal*, *The Astrophysical Journal*, *Bernoulli*, *Bayesian Analysis*, *Biometrics*, *Biometrika*, *IEEE Transactions on Signal Processing*, *Journal of the American Statistical Association*, *Journal of Business and Economic Statistics*, *Journal of Computational and Graphical Statistics*, *Journal of Econometrics*, *Journal of Multivariate Analysis*, *Journal of the Royal Statistical Society, Series A, B, and C*, *Journal of Statistical Computation and Simulation*, *Journal of Statistical Methodology*, The National Science Foundation, Neural Information Processing Systems Conferences, The NSA Mathematical Sciences Program, *Psychometrika*, *Statistical Science*, *Statistica Sinica*, *Technometrics*, etc.

OFFICES IN
SCHOLARLY
ORGANIZATIONS

Program Chair (elected), Section on Statistical Learning and Data Mining, American Statistical Association, 2011 (Chair Elect), 2012 (Chair), 2013 (Past Chair).

Board of Directors (elected), International Society for Bayesian Analysis, 2009 – 2011.

Executive Board, Astrostatistics Committee of the International Statistical Institute, 12/09 – present.

Workgroup on the Future of Electronic Publication, American Statistical Association, 04/09 – 08/09.

Program Chair (elected), Section on Bayesian Statistical Science, American Statistical Association, 2007 (Chair Elect), 2008 (Chair), 2009 (Past Chair).

Management Committee of the *Journal of Computational and Graphical Statistics*, a joint committee of the American Statistical Association, the Institute for Mathematical Statistics, and the Interface Foundation, 2007 – 2009.

Section of Bayesian Statistical Sciences of the American Statistical Association Student Paper Competition Selection Committee, Chair, 2007.

CONFERENCE
ORGANIZATION

2012 Joint Statistical Meetings, San Diego, California, July 2012, Program Committee.

Statistical Challenges in Modern Astronomy V, State College, Pennsylvania, July 2011, Scientific Organizing Committee.

Workshop on Computational AstroStatistics: Challenges and Methods for Massive Astronomical Data, Cambridge, Massachusetts, August 2010, Scientific Organizing Committee.

41st Symposium on the Interface: Computing Sciences and Statistics, Seattle, Washington, May 2010, Program Committee.

Twelfth International Conference on Artificial Intelligence and Statistics, Clearwater, Florida, April 2009, Conference Co-Chair.

2008 Joint Statistical Meetings, Denver, Colorado, August 2008, Program Committee.

40th Symposium on the Interface: Computing Sciences and Statistics, Durham, North Carolina, May 2008, Program Committee.

39th Symposium on the Interface: Computing Sciences and Statistics, Philadelphia, Pennsylvania, May 2007, Program Committee.

SAMSI: Program on Astrostatistics, Research Triangle Park, North Carolina, 1/06-6/06, Planning Committee and Reserach Fellow.

IPAM Conference: Mathematical Challenges in Astronomical Imaging, Los Angeles, California, January 2004, Scientific Organizing Committee.

Workshop on Current Challenges in Multi-Scale Deconvolution Methods, Cambridge, Massachusetts, January 2003, Scientific Organizing Committee.

Statistical Challenges in Modern Astronomy III, State College, Pennsylvania, July 2001, Scientific Organizing Committee.

Organized Technical Sessions at The Joint Statistics Meetings in Baltimore, Maryland (1999), Indianapolis, Indiana (2000), New York, New York (2002), San Francisco, California (2003), Salt Lake City, Utah (2 sessions, 2007), Denver, Colorado (2 sessions, 2008), Washington DC (2009), and Vancouver, British Columbia (2010); at The Meeting of the Institute for Mathematical Statistics in Fairbanks, Alaska

(2005); and at Interface Symposia in Chicago, Illinois (1999), Pasadena, California (2006), Philadelphia, Pennsylvania (2007), Durham, North Carolina (2008), and Seattle, Washington (2010).

Coordinated the *California-Boston AstroStatistics Collaboration* which has organized sessions on statistical methods in astronomy at numerous astronomy meetings.

DOCTORAL
THESIS ADVISING

Research Adviser for

- Stenning D. (in progress). Department of Statistics, University of California, Irvine.
Min, S. (in progress). Department of Statistics, University of California, Irvine.
Xu, J. (in progress). Department of Statistics, University of California, Irvine.
DeGennaro, S. (2009). *White Dwarfs and the Ages of Stellar Populations*, Department of Astronomy, University of Texas, Austin (Primary advisor was Ted von Hippel).
Park, T. (2006). *Inference and Efficient Computation for Highly Structured Models with Applications*, Department of Statistics, Harvard University.
Kang, H. (2005). *Markov Chain Monte Carlo Applications in Bioinformatics and Astrophysics*, Department of Statistics, Harvard University (Joint with Jun Liu).
Yu, Y., (2005). *Three Contributions to Statistical Computing*, Department of Statistics, Harvard University (Joint with Donald B. Rubin and Xiao-Li Meng).
Esch, D. (2003). *Applications and Extensions of Three Statistical Models*, Department of Statistics, Harvard University (Joint with Carl Morris).
Imai, K. (2003). *Statistical Analysis of Field Experiments*, Department of Government, Harvard University (Joint with Gary King).
Pedroza, C. (2002). *Bayesian Hierarchical Time Series Modeling of Mortality Rates*, Department of Statistics, Harvard University.
Protassov, R. (2002). *An Application of Missing Data Methods: Testing for the Presence of a Spectral Line in Astronomy and Parameter Estimation of the Generalized Hyperbolic Distribution*, Department of Statistics, Harvard University (Joint with Art Dempster).
Tang, R. (2002). *Fitting and Evaluating Certain Two-Level Hierarchical Models*, Department of Statistics, Harvard University (Joint with Carl Morris).

Doctoral Thesis Committees for

- Zhu, Y.-K., Department of Computer Science, University of California, Irvine, December 2009.
Nistor, E., Department of Informatics, University of California, Irvine, June 2005.
Michalak, S., Department of Statistics, Harvard University, May 2002.
Hill, J., Department of Statistics, Harvard University, May 2000.
Perisic, I., Department of Statistics, Harvard University, May 2000.
Reiter, J. P., Department of Statistics, Harvard University, May 1999.
Scott, S. L., Department of Statistics, Harvard University, May 1998.

Qualifying and Candidacy Examination Committees for

- Joudaki, S., Department of Physics, University of California, Irvine, September 2010.

Tian, X., Department of Statistics, University of California, Irvine, May 2010.

Grijalva, D., Kim, J., Mohammad, A., Salas, I., and Zhang, G., Department of Economics, University of California, Irvine, December 2009.

Brummel, S., Department of Statistics, University of California, Irvine, May 2008.

Zhu, Y.-K., Department of Computer Science, University of California, Irvine, December 2007.

Ajami, N., Department of Civil Engineering, University of California, Irvine, September 2004.

MEMBERSHIPS

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

REFEREED PUBLICATIONS IN SCHOLARLY JOURNALS

1. Lee, H., Kashyap, V. L., van Dyk, D. A., Connors, A., Drake, J. J., Izem, R., Min, S., Park, T., Ratzlaff, P., Siemiginowska, A., and Zezas, A. (2010). Accounting for Calibration Uncertainties in X-ray Analysis: Effective Areas in Spectral Fitting. *The Astrophysical Journal*, under revision.
2. Jeffery, E., von Hippel, T., DeGennaro, S., Stein, N., Jefferys, W. H., van Dyk, D. A., and (2010). The White Dwarf Age of NGC 2477. *Astrophysical Journal*, under revision.
3. Kim, J., Olson, C., Kramer, J., Pearson, M., van Dyk, D. A., Collins, P., Land, R., Scarcella, R. (2010). Can a Cognitive Strategies Approach to Reading and Writing Instruction Improve Literacy Outcomes for Low Income English Language Learners in the Middle and High School Grades? Results from a Multi-Site Cluster Randomized Controlled Trial of the Pathway Project. *Journal of Research on Educational Effectiveness*, in press.
4. Kashyap, V. L., van Dyk, D. A., Connors, A., Freeman, P. E., Siemiginowska, A., Xu, J., and Zezas, A. (2010). On Computing Upper Limits to Source Intensities. *Astrophysical Journal*, **719**, 900-914.
5. van Dyk, D. A. and Meng, X. L. (2010). Cross-Fertilizing Strategies for Better EM Mountain Climbing and DA Field Exploration: A Graphical Guide Book. *Statistical Science*, in press.
6. van Dyk, D. A. (2010). Marginal MCMC Methods. *Statistica Sinica*, **20**, 1423-1454.
7. Park, T. and van Dyk, D. A. (2009). Partially Collapsed Gibbs Samplers: Illustrations and Applications. *Journal of Computational and Graphical Statistics*, **18**, 283-305.
8. van Dyk, D. A., DeGennaro, S., Stein, N., Jefferys, W. H., and von Hippel, T. (2009). Statistical Analysis of Stellar Evolution. *The Annals of Applied Statistics*, **3**, 117-143.

9. DeGennaro, S., von Hippel, T., Jefferys, W. H., Stein, N., van Dyk, D. A., and Jeffery, E. (2009). Inverting Color-Magnitude Diagrams to Access Precise Star Cluster Parameters: A New White Dwarf Age for the Hyades. *The Astrophysical Journal*, **696**, 12–23.
10. Park, T., van Dyk, D. A., and Siemiginowska, A. (2008). Searching for Narrow Emission Lines in X-ray Spectra: Computation and Methods. *The Astrophysical Journal*, **688**, 807–825.
11. van Dyk, D. A. and Park, T. (2008). Partially Collapsed Gibbs Samplers: Theory and Methods. *Journal of the American Statistical Association*, **103**, 790–796.
12. Gelman, A., van Dyk, D. A., Huang, Z., and Boscardin, W. J. (2008). Using redundant parameterizations to fit hierarchical models. *The Journal of Computational and Graphical Statistics*, **17**, 95–122.
13. Park, T., Kashyap, V. L., Siemiginowska, A., van Dyk, D. A., Zezas, A. Heinke, C. and Wargelin, B. J. (2006). Hardness Ratios with Poisson Errors: Modeling and Computations. *The Astrophysical Journal*, **652**, 610–628.
14. van Dyk, D. A., Connors, A., Esch, D. N., Freeman, P., Kang, H., Karovska, M., Kashyap, V., Siemiginowska, A., and Zezas, A. (2006). Deconvolution in High Energy Astrophysics: Science, Instrumentation, and Methods (with discussion). *Bayesian Analysis*, **1**, 189–236.
15. Imai, K. and van Dyk, D. A. (2005). MNP: R Package for Fitting the Multinomial Probit Model. *Journal of Statistical Software*, **14**, Issue 5.
16. Imai, K. and van Dyk, D. A. (2005). A Bayesian Analysis of the Multinomial Probit Model Using Marginal Augmentation. *Journal of Econometrics*, **124**, 311–334.
17. Imai, K. and van Dyk, D. A. (2004). Causal Inference with General Treatment Regimes: Generalizing the Propensity Score. *Journal of the American Statistical Association*, **99**, 854–866.
18. van Dyk, D. A. and Kang, H. (2004). Highly Structured Hierarchical Models for Spectral Analysis in High Energy Astrophysics. Invited paper for special astrostatistics issue of *Statistical Science*, **19**, 275–293.
19. Esch, D. N., Connors, A., Karovska, M., and van Dyk, D. A. (2004). An Image Reconstruction Technique with Error Estimates. *The Astrophysical Journal*, **610**, 1213–1227.
20. Javaras, K. N. and van Dyk, D. A. (2003). Multiple Imputation for Incomplete Data with Semicontinuous Variables. *Journal of the American Statistical Association*, **98**, 703–715.
21. van Dyk, D. A. and Tang, R. (2003). The One-Step-Late PXEM Algorithm. *Statistics and Computing*, **13**, 137–152.
22. Protassov, R., van Dyk, D. A., Connors, A., Kashyap, V. L. and Siemiginowska, A. (2002). Statistics: Handle with Care, Detecting Multiple Model Components with the Likelihood Ratio Test. *The Astrophysical Journal*, **571**, 545–559.
23. van Dyk, D. A., Connors, A., Kashyap, V. L., and Siemiginowska, A. (2001). Analysis of Energy Spectrum with Low Photon Counts via Bayesian Posterior Simulation. *The Astrophysical Journal*, **548**, 224–243.
24. van Dyk, D. A. and Meng, X. L. (2001). The Art of Data Augmentation (with discussion). *The Journal of Computational and Graphical Statistics*, **10**, 1–81.

25. Fouilly, J.-L. and van Dyk, D. A. (2000). The PX-EM Algorithm for Fast Stable Fitting of Henderson's Mixed Model. *Genetics, Selection Evolution*, **32**, 143-163.
26. van Dyk, D. A. (2000). Fitting Mixed-Effects Models Using Efficient EM-type Algorithms. *The Journal of Computational and Graphical Statistics*, **9**, 78-98.
27. van Dyk, D. A. (2000). Nesting EM Algorithms for Computational Efficiency. *Statistica Sinica*, **10**, 203-225.
28. Meng, X. L. and van Dyk, D. A. (1999). Seeking Efficient Data Augmentation Schemes Via Conditional and Marginal Augmentation. *Biometrika*, **86**, 301-320.
29. Meng, X. L. and van Dyk, D. A. (1998). Fast EM Implementations for Mixed-Effects Models. *Journal of the Royal Statistical Society, Series B*, **60**, 559-578.
30. Meng, X. L. and van Dyk, D. A. (1997). The EM Algorithm — An Old Folk Song Sung to a Fast New Tune (with discussion). *Journal of the Royal Statistical Society, Series B*, **59**, 511-540.
31. van Dyk, D. A. and Meng, X. L. (1997). On the Orderings and Groupings of Conditional Maximizations Within ECM-Type Algorithms. *The Journal of Computational and Graphical Statistics*, **6**, 202-223.
32. van Dyk, D. A., Meng X. L., and Rubin, D. B. (1995). Maximum Likelihood Estimation via the ECM Algorithm: Computing the Asymptotic Variance. *Statistica Sinica*, **5**, 55-75.
33. van Dyk, D. A. and Park, T. (2010). Partially Collapsed Gibbs Sampling & Path-Adaptive Metropolis-Hastings in High-Energy Astrophysics. In *Handbook of Markov Chain Monte Carlo* (Editors: S. Brooks, A. Gelman, G. Jones and X.-L. Meng), Chapman & Hall/CRC Press, in press.
34. Connors, A. and van Dyk, D. A. (2007). How To Win With Non-Gaussian Data: Poisson Goodness-of-Fit. In *Statistical Challenges in Modern Astronomy IV* (Editors: G. J. Babu and E. D. Feigelson), Astronomical Society of the Pacific, San Francisco, Vol. CS371, 101-117.
35. van Dyk, D. A. and Park, T., (2004). Efficient EM-Type Algorithms for Fitting Spectral Lines in High Energy Astrophysics. In *Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives: An Essential Journey with Donald Rubin's Statistical Family* (Editors: A. Gelman and X. L. Meng), Wiley & Sons, New York, 285-296.
36. van Dyk, D. A. (2004). Highly-Structured Statistical Models in High Energy Astrophysics. In *Proceedings of the Conference on Statistical Problems in Particle Physics, Astrophysics, and Cosmology* (Editors: L. Lyons, R. Mount, and R. Reitmeier), SLAC Technical Publications Department, Menlo Park, CA, 114-121.
37. van Dyk, D. A. (2003). Hierarchical Models, Data Augmentation, and Markov Chain Monte Carlo with discussion. In *Statistical Challenges in Modern Astronomy III* (Editors: G. J. Babu and E. D. Feigelson), Springer, New York, 41-56.
38. van Dyk, D. A. and Hans, C. M. (2002). Accounting for Absorption Lines in Images Obtained with the Chandra X-ray Observatory. In *Spatial Cluster Modelling* (Editors: D. Denison and A. Lawson), CRC Press, London, 175-198.

REFEREED
PUBLICATIONS IN
EDITED VOLUMES

EDITED VOLUMES
AND
SPECIAL ISSUES

39. Meng, X. L., and van Dyk, D. A. (Guest Editors, 2010) Special Issue to Commemorate the Thirtieth Anniversary of the EM Algorithm. *Statistical Science*, in progress.
40. van Dyk, D. A. and Welling, M. (Editors, 2009). Proceedings of the Twelfth International Conference on Artificial Intelligence and Statistics. *Journal of Machine Learning Research Workshop and Conference Proceedings*, Volume 5: AISTATS 2009.

REFEREED ONLINE
SUPPLEMENTS

41. van Dyk, D. A., DeGennaro, S., Stein, N., Jefferys, W. H., and von Hippel, T. (2009). Statistical Analysis of Stellar Evolution: Online Supplement. *The Annals of Applied Statistics*, Volume 3, Number 1.
42. Park, T. and van Dyk, D. A. (2009). Partially Collapsed Gibbs Samplers: Illustrations and Applications: Online Supplement. *Journal of Computational and Graphical Statistics*, Volume 18, Number 1.

INVITED
PUBLICATIONS IN
EDITED VOLUMES
AND
ENCYCLOPEDIAS

43. Glickman, M. E. and van Dyk, D. A. (2007). Basic Bayesian Methods. In *Methods in Molecular Biology: Elementary Biostatistics* (Editor: Walter T. Ambrosius), Humana Press, Totowa, New Jersey, 319–338.
44. van Dyk, D. A. and Meng, X. L. (2000). The EM Algorithm. Invited entry in *The Encyclopedia of Mathematics*, Kluwer Academic Publishers, Dordrecht.

PUBLICLY
AVAILABLE
STATISTICAL
SOFTWARE

45. Kramer, J., van Dyk, D. A., Connors, A., Kashyap, V., Refsdal, B., and Siemiginowska, A. (2009). pyBLoCXS: Bayesian MCMC Analysis of Low-Count Spectra. URL: <http://hea-www.harvard.edu/AstroStat/pyBLoCXS/>
46. van Dyk, D. A. and Connors, A. (2009). EMC2: Bayesian Multi-Scale Analysis of Low-Count Images. URL: hea-www.harvard.edu/AstroStat/EMC2/index.html
47. Park, T., van Dyk, D. A. and Kashyap, V. (2005). BEHR: Bayesian Estimation of Hardness Ratios. URL: hea-www.harvard.edu/AstroStat/BEHR/index.html.
48. Imai, K. and van Dyk, D. A. (2004). MNP: R Package for Fitting the Multinomial Probit Model. URL: cran.r-project.org/src/contrib/Descriptions/MNP.html.

CONTRIBUTED
AND INVITED
DISCUSSIONS AND
REJOINDERS

49. van Dyk, D. A. and Kang, H. (2006). Rejoinder to Deconvolution in High Energy Astrophysics: Science, Instrumentation, and Methods. *Bayesian Analysis*, **1**, 241–248.
50. van Dyk, D. A. (2003). Invited comment on Bayesian Adaptive Exploration by T. J. Loredo and D. F. Chernoff. In *Statistical Challenges in Modern Astronomy III* (Editors: G. J. Babu and E. D. Feigelson), Springer, New York, 70.
51. van Dyk, D. A. (2003). Invited comment on The Sloan Digital Sky Survey by M. A. Strauss. In *Statistical Challenges in Modern Astronomy III* (Editors: G. J. Babu and E. D. Feigelson), Springer, New York, 124–126.
52. van Dyk, D. A. (2002). Invited comment on Setting Confidence Intervals on Bounded Parameters by M. Mandelkern. *Statistical Science*, **17**, 149–172.
53. Zaslavsky, A. and van Dyk, D. A. (2002). Comment on A Note on the Estimation of the Multinomial Logit Model with Random Effects by Z. Chen and L. Kuo. *The American Statistician*, **56**, 80–81.

54. van Dyk, D. A. and Meng, X. L. (2001). Rejoinder to The Art of Data Augmentation. *The Journal of Computational and Graphical Statistics*, **10**, 98–111.
55. van Dyk, D. A. (1999). Comment on Quantifying Surprise in the Data and Model Verification by M. J. Bayarri and J. O. Berger. In *Bayesian Statistics 6* (Editors: J. M. Bernardo, J. O. Berger, A. P. Dawid, and A. F. M. Smith), Oxford University Press, Oxford, 53–82.
56. van Dyk, D. A. (1999). Comment on Simulated Sintering: Markov Chain Monte Carlo With Spaces of Varying Dimension by J. S. Liu and C. Sabatti. In *Bayesian Statistics 6* (Editors: J. M. Bernardo, J. O. Berger, A. P. Dawid, and A. F. M. Smith), Oxford University Press, Oxford, 389–413.
57. Meng, X. L. and van Dyk, D. A. (1997). Rejoinder to The EM Algorithm — An Old Folk Song Sung to a Fast New Tune. *Journal of the Royal Statistical Society, Series B*, **59**, 559–567.

CONFERENCE
PROCEEDINGS AND
OTHER
PUBLICATIONS

58. Kashyap, V., Lee, H., Siemiginowska, A., MacDowell, J., Rots, A., Drake, J., Ratzlaff, P., Zezas, A., Izem, R., Connors, A., van Dyk, D., and Park, T. (2008). How to Handle Calibration Uncertainties in High-Energy Astrophysics. In *Observatory Operations: Strategies, Processes, and Systems II* (Editors: R. J. Brissenden and D. R. Silva), SPIE, Vol. 7016, 70160P, 8 pages.
59. Park, T., van Dyk, D. A., and Siemiginowska, A. (2007). Fitting Narrow Spectral Lines in High-Energy Astrophysics Using Incompatible Gibbs Samplers. In *Statistical Challenges in Modern Astronomy IV* (Editors: G. J. Babu and E. D. Feigelson), Astronomical Society of the Pacific, San Francisco, Vol. CS371, 437–438.
60. Jeffreys, W. H., von Hippel, T., Scott, J., Stein, N., Winget, D. E., DeGennaro, S., Dam, A., Jeffery, E., and van Dyk, D. A. (2007). Inverting Color-Magnitude Diagrams to Access Precise Star Cluster Parameters: A Bayesian Approach. In *Statistical Challenges in Modern Astronomy IV* (Editors: G. J. Babu and E. D. Feigelson), Astronomical Society of the Pacific, San Francisco, Vol. CS371, 435–436.
61. Kang, H., van Dyk, D. A., Kashyap, V., and Connors, A. (2005). Incorporating Atomic Data Errors in Stellar DEM Reconstruction. In *X-ray Diagnostics of Astrophysical Plasmas: Theory, Experiment, and Observation* (Editor R. K. Smith), American Institute of Physics, Vol. 774, 373–375.
62. Hans, C. M. and van Dyk, D. A. (2003). Accounting for Absorption Lines in High Energy Spectra. In *Statistical Challenges in Modern Astronomy III* (Editors: G. J. Babu and E. D. Feigelson), Springer, New York, 429–430.
63. Kang, H., van Dyk, D. A., Yu, Y., Siemiginowska, A., Connors, A., and Kashyap, V. L. (2003). New MCMC Methods to Address Pile-up in the Chandra X-ray Observatory In *Statistical Challenges in Modern Astronomy III* (Editors: G. J. Babu and E. D. Feigelson), Springer, New York, 449–450.
64. Sourlas, N., van Dyk, D. A., Kashyap, V., Drake, J., and Pease, D. (2003). Bayesian Spectral Analysis of “MAD” Stars. In *Statistical Challenges in Modern Astronomy III*, (Editors: G. J. Babu and E. D. Feigelson), Springer, New York, 489–490.
65. van Dyk, D. A. and Meng, X. L. (2000). Algorithms Based on Data Augmentation: A Graphical Representation and Comparison. In *Computing Science and*

Statistics: Proceedings of the 31st Symposium on the Interface (Editors: K. Berk and M. Pourahmadi), vol. 31, 230–239. Interface Foundation of North America, Fairfax Station, VA.

66. Meng, X. L. and van Dyk, D. A. (1996). Minimum Information Ratio and Relative Augmentation Function. *The Proceedings of the Statistical Computing Section of the American Statistical Association*, 73–78.
67. Meng, X. L. and van Dyk, D. A. (1995). Augmenting Data Wisely to Speed Up the EM Algorithm. *The Proceedings of the Statistical Computing Section of the American Statistical Association*, 160–165.
68. van Dyk, D. A. (1995). *Construction, Implementation, and Theory of Algorithms Based on Data Augmentation and Model Reduction*. Ph.D. Thesis, University of Chicago, Department of Statistics.
69. van Dyk, D. A. and Meng, X. L. (1994). Permuting CM Steps within the ECM Algorithm. *The Proceedings of the Statistical Computing Section of the American Statistical Association*, 130–135.

INVITED
PRESENTATIONS
AND COLLOQUIA

1. Workshop on Statistical Issues Relevant to Significance of Discovery Claims, Banff International Research Station, Canada, July, 2010, *Summary of Statistical Issues Discussed in the Workshop*.
2. Workshop on Statistical Issues Relevant to Significance of Discovery Claims, Banff International Research Station, Canada, July, 2010, *Upper Limits*.
3. Seminar für Statistik, Department of Mathematics, Eidgenössische Technische Hochschule Zürich, May 2010, *Statistical Analysis of Stellar Evolution*.
4. Department of Statistics, The University of California, Riverside, May 2010, *Statistical Analysis of Stellar Evolution*.
5. Department of Statistics, The Chinese University of Hong Kong, March 2010, *Statistical Analysis of Stellar Evolution*.
6. Department of Information and Systems Management, Honk Kong University of Science and Technology, March 2010, *Statistical Analysis of Stellar Evolution*.
7. Department of Statistics, The University of Honk Kong, February 2010, *Statistical Analysis of Stellar Evolution*.
8. Department of Statistics, Carnegie Mellon University, November 2009, *Statistical Analysis of Stellar Evolution*.
9. The Joint Statistical Meetings, Washington, DC, August 2009, *Coherent Statistical Calibration of High-Energy Photon Detectors*.
10. The Biometric Society WNAR Meetings, Portland Oregon, June 2009, *Statistical Analysis of Stellar Evolution*.
11. Department of Statistics, The Ohio State University, May 2009, *Partially Collapsed Gibbs Samplers with Applications in High-Energy Astrophysics*.
12. Department of Statistics, The Ohio State University, May 2009, *Statistical Analysis of Stellar Evolution*.
13. Department of Statistics, Columbia University, May 2009, *Statistical Analysis of Stellar Evolution*.
14. Center for Statistics and the Social Sciences, University of Washington, April 2009, *Statistical Analysis of Stellar Evolution*.

15. World Conference of the International Association for Statistical Computing, Yokohama, Japan, December, 2008, *Partially Collapsed Gibbs Samplers with Applications in High-Energy Astrophysics*.
16. The Joint Statistical Meetings, Denver, Colorado, August 2008, *Statistical Analysis of Stellar Evolution*.
17. Calibration and Validation of Complex Computer Models: Bayesian Approaches, Bayesian Solutions, Satellite Workshop to the Ninth International Society for Bayesian Analysis World Meeting, Sydney, Australia, July 2008, *Statistical Analysis of Stellar Evolution*.
18. The Seventh World Congress in Probability and Statistics, Singapore, July 2008, *Statistical Analysis of Stellar Evolution*.
19. Tenth High Energy Astrophysics Division Meetings, Los Angeles, California, March 2008, *Statistics: Handle with Care*.
20. Statistics Group, The RAND Corporation, Santa Monica, California, March 2008, *Spectral Analysis of Faint Astronomical Objects: Bayesian Modeling, Computation, and Inference*.
21. Department of Statistics, University of Illinois, March 2008, *Spectral Analysis of Faint Astronomical Objects: Bayesian Modeling, Computation, and Inference*.
22. Department of Mathematics, California State University, Bakersfield, November, 2007, *Causal Inference with General Treatment Regimes: Generalizing the Propensity Score*.
23. 50th Anniversary Celebration & Symposium [of the Department of Statistics, Harvard University], Cambridge, Massachusetts, October 2007, *Distant Kin in the EM Family*.
24. Department of Statistics and Probability, Michigan State University, October 2007, *Spectral Analysis of Faint Astronomical Objects: Bayesian Modeling, Computation, and Inference*.
25. Tenth Meeting of New Researchers in Statistics and Probability, Salt Lake City, Utah, July 2007, Invited Participant in Editor's Panel.
26. DIMACS Workshop on Markov Chain Monte Carlo: Synthesizing Theory and Practice, Piscataway, New Jersey, June 2007, *Implementing Gibbs-Type Samplers Using Incompatible Draws With Applications in High-Energy Astrophysics*.
27. CACR Workshop on Interdisciplinary Strategic Issues in e-Science and Cyber-Infrastructure, Pasadena, California, June 2007, *Data-Driven Science: The View of a Statistician*.
28. Department of Applied Mathematics and Statistics, University of California, Santa Cruz, May 2007, *Spectral Analysis of Faint Astronomical Objects: Bayesian Modeling, Computation, and Inference*.
29. Third Workshop on Monte Carlo Methods, Cambridge, Massachusetts, May 2007, *Implementing Gibbs-Type Samplers Using Incompatible Draws With Applications in High-Energy Astrophysics*.
30. Department of Statistics, National University of Singapore, April 2007, *Spectral Analysis of Faint Astronomical Objects: Bayesian Modeling, Computation, and Inference*.

31. Department of Statistics, Chinese University of Hong Kong, April 2007, *Spectral Analysis of Faint Astronomical Objects: Bayesian Modeling, Computation, and Inference*.
32. First GLAST Symposium, Palo Alto, California, February 2007, *Multi-Scale Image Reconstruction with Low-Count Poisson Data*.
33. Department of Mathematics, California State University, Bakersfield, October, 2006, *Highly Structured Models in High Energy Astrophysics*.
34. Workshop on Statistical inference Problems in High Energy Physics and Astronomy, Banff International Research Station, Canada, July, 2006, *Detection Limits, Upper Limits, and Confidence Intervals in High-Energy Astrophysics*.
35. Statistical Challenges in Modern Astronomy IV, State College, Pennsylvania, June 2006, *Comments on "How to Win With Non-Gaussian Data: Poisson Imaging Version" by Alanna Connors*.
36. Department of Statistics, Duke University, February 2006, *Going Beyond Compatibility: The Future of the Gibbs Sampler?*
37. Department of Statistics, University of Chicago, January 2006, *Highly Structured Models in High Energy Astrophysics*.
38. Department of Statistics, University of California, Berkeley, November 2005 *Highly Structured Models, High Energy Astrophysics, and Efficient Computation*.
39. Empirical Evaluation of Labour Market Programmes, Institute of Employment Research, Nuremberg, Germany, June 2005, *Causal Inference with General Treatments Regimes: Generalizing the Propensity Score*.
40. California-Harvard AstroStatistics Collaboration, Department of Statistics, Harvard University, May, 2005, *High Energy Astrophysics: What do Statistical Methods Have to Offer?*
41. Fifth SIAM International Conference on Data Mining, Newport Beach, California, April 2005, *Highly Structured Models in High Energy Astrostatistics: Reconstructing a Stellar DEM*.
42. Reed Institute for Decision Science. Claremont McKenna College, February, 2005, *Highly Structured Models in High Energy Astrophysics*.
43. Department of Mathematical Sciences, Worcester Polytechnic Institute, November 2004, *Highly Structured Models in High Energy Astrophysics*.
44. Astronomical Data Analysis Software & Systems XIV, Pasadena California, October 2004, *Model-Based Count-Limited Image Restoration*.
45. Meeting of the High Energy Astrophysics Division of the American Astronomical Society, New Orleans, Louisiana, September, 2004, *Two New Statistical Tools for Bayesian Analysis of Low-Count Spectra*.
46. The Joint Statistical Meetings, Toronto, Ontario, August 2004, Invited poster, *Highly Structured Models and High Energy Astrophysics*.
47. Sixth International Chinese Statistical Association Conference, Singapore, August 2004, *Reconstruction of the Physical Environment of a Stellar Corona*
48. Seventh World Meeting of the International Society for Bayesian Analysis, Viña del Mar, Chile, May 2004, *Reconstruction of a Stellar DEM: Missing Data Methods in High Energy Astrophysics*.

49. Department of Statistics, Los Alamos National Labs, Los Alamos New Mexico, May 2004, *Highly Structured Models in High Energy Astrophysics*.
50. Division of Biostatistics, University of California, San Diego, April 2004, *Highly Structured Models in High Energy Astrophysics*.
51. IPAM Conference: Mathematical Challenges in Astronomical Imaging, Los Angeles, California, January 2004, *Model-Based Count-Limited Image Restoration*.
52. Statistics Group, The RAND Corporation, Santa Monica, California, January 2004, *Causal Inference with Generalized Treatments Regimes: Generalizing the Propensity Score*.
53. Department of Cognitive Science, University of California, Irvine, Brain Imaging Seminar, November 2003, *A Poisson-Model-Based Image Restoration Technique with Applications in High Energy Astrophysics*.
54. Department of Astronomy, University of California, Los Angeles, November 2003, *Sophisticated Statistical Methods for Sophisticated High Energy Instruments*.
55. Department of Biostatistics, University of California, Los Angeles, November 2003, *Causal Inference with Generalized Treatments Regimes: Generalizing the Propensity Score*.
56. Department of Statistics, University of Toronto, October 2003, *Highly Structured Models in High Energy Astrophysics*.
57. Department of Health Care Policy, Boston University, October 2003, *Causal Inference with Generalized Treatments Regimes: Generalizing the Propensity Score*.
58. Case Studies in Bayesian Statistics Workshop 7, Pittsburgh, Pennsylvania, September 2003, *Highly Structured Models for Spectral and Image Analysis in High Energy Astrophysics*.
59. SLAC Conference on Statistics Problems in Particle Physics, Astrophysics, and Cosmology, Menlo Park, California, September 2003, *Hierarchical Models, Data Augmentation and Markov Chain Monte Carlo*.
60. Department of Statistics, Columbia University, October 2002, *Introducing Incompatibility into Gibbs Samplers to Improve Convergence*.
61. The First Cape Cod Workshop on Monte Carlo Methods, Hyannis, Massachusetts, September 2002, *Introducing Incompatibility into Gibbs Samplers to Improve Convergence*.
62. Department of Statistics, University of California, Los Angeles, April 2002, *Highly Structured Models for Spectral and Spatial Analysis of Chandra Images*.
63. Department of Statistics, Colorado State University, April 2002, *Highly Structured Models for Spectral and Spatial Analysis of Chandra Images*.
64. First SIAM Conference on Imaging Science, Boston, Massachusetts, March 2002, *High Energy Imaging in Astrophysics, an Application of Bayesian Multiscale Models for Poisson Processes*.
65. Department of Biostatistics, Harvard School of Public Health, October 2001, *Spectral and Spatial Modeling for the Chandra X-ray Observatory*.
66. Fifth International Chinese Statistical Association Conference, Hong Kong, China, August 2001, *Sampling Schemes and Incompatibility in Marginal Gibbs Samplers*.

67. Fifth International Chinese Statistical Association Conference, Hong Kong, China, August 2001, *Hierarchical Spectral and Spatial Modeling for the Chandra X-ray Observatory*.
68. Statistical Challenges in Modern Astronomy III, State College, Pennsylvania, July 2001, *Data Augmentation, Hierarchical Models, and Markov Chain Monte Carlo*.
69. Southern Regional Council on Statistics Research Conference, St. Augustine, Florida, June 2001, *Incompatibility in Gibbs Sampling*.
70. Department of Statistics, University of Missouri at Columbia, May 2001, *Spectral and Spatial Modeling for the Chandra X-ray Observatory*.
71. Department of Statistics, Wharton School, University of Pennsylvania, April 2001, *Spectral and Spatial Modeling for the Chandra X-ray Observatory*.
72. Meetings of the International Indian Statistical Association, New Delhi, India, January 2001, *Spectral and Spatial Modeling for the Chandra X-ray Observatory*.
73. Department of Mathematics, Massachusetts Institute of Technology, December 2000, *Spectral and Spatial Modeling for the Chandra X-ray Observatory*.
74. Department of Government, Harvard University, December 2000, *Spectral and Spatial Modeling for the Chandra X-ray Observatory*.
75. Great Lakes Symposium on Statistical Issues in Health Care, Kalamazoo, MI, October 2000, *Nesting EM Algorithms for Computational Efficiency with Applications to Binary Longitudinal and Spectral Analysis*.
76. Department of Statistics, Los Alamos National Labs, Los Alamos New Mexico, September 2000, *Fitting Mixed-Effects Models Using Efficient EM-type Algorithms*.
77. Interface 2000, New Orleans, LA, April 2000, *Fitting Mixed-Effects Models Using Efficient EM-type Algorithms*, presented in a special annual session honoring the best contributions to the *Journal of Computational and Graphical Statistics*.
78. Department of Mathematics, University of Massachusetts at Amherst, March 2000, *Nesting EM Algorithms for Computational Efficiency with Applications to Binary Longitudinal and Spectral Analysis*.
79. Center for Statistical Sciences, Brown University, September 1999, *Nesting EM Algorithms for Computational Efficiency with Applications to Binary Longitudinal and Spectral Analysis*.
80. Interface '99, Schaumburg, Illinois, June 1999, *The Art of Data Augmentation*.
81. Department of Statistics, The Pennsylvania State University, December 1998, *Recent Advances in Efficient Data Augmentation Based Algorithms*.
82. School of Statistics, University of Minnesota, May 1998, *The Art of Data Augmentation*.
83. Department of Biostatistics, Harvard School of Public Health, April 1998, *The Art of Data Augmentation*.
84. Department of Statistics, Harvard University, February 1997, *Efficient Data Augmentation and Model Parameterization for EM and MCMC*.
85. The Royal Statistical Society, London, December, 1996, *The EM Algorithm — An Old Folk Song Sung to a Fast New Tune*.
86. Department of Mathematics, Boston University, October 1996, *Sometimes there is a Free Lunch: Augmenting Data Wisely to Speed up the EM Algorithm*.

87. Department of Mathematics, Western Michigan University, November 1995, *Augmenting Data Wisely to Speed up the EM Algorithm*.
88. Department of Statistics, Michigan State University, October 1995, *Sometimes there is a Free Lunch: Augmenting Data Wisely to Speed up the EM Algorithm*.
89. Interface '95, Pittsburgh, Pennsylvania, June 1995, *Augmenting Data Wisely to Speed up the EM Algorithm*.
90. Great Lakes Symposium on Statistical Issues in Health Care, Kalamazoo, Michigan, June 1995, *Augmenting Data Wisely to Speed up the EM Algorithm*.

CONTRIBUTED
CONFERENCE
PRESENTATIONS

91. The Valencia International Meeting on Bayesian Statistics, Benidorm, Spain, June 2010, Poster, *Metropolis Hastings within Partially Collapsed Gibbs with Application in High-Energy Astrophysics*.
92. Institute for Education Sciences Research Conference, Washington, DC, June 2009, Poster, *The Pathway Project: A Cognitive Strategies Approach to Reading and Writing Instruction for Teachers of Secondary English Language Learners*.
93. The Ninth International Society for Bayesian Analysis World Meeting, Hamilton Island, Australia, July 2008, Poster, *Statistical Analysis of Stellar Evolution*.
94. Tenth High Energy Astrophysics Division Meetings, Los Angeles, California, March 2008, Poster, *What is an Upper Limit?*.
95. The Joint Statistical Meetings, Salt Lake City, Utah, August 2007, Special contributed talk, *Fully Bayesian Analysis of Low-Count Astronomical Images*.
96. The Valencia International Meeting on Bayesian Statistics, Benidorm, Spain, June 2006, Poster, *Fitting Narrow Spectral Lines in High Energy Astrophysics Using Incompatible Gibbs Samplers*.
97. The Joint Statistical Meetings, Minneapolis, Minnesota, August 2005, Special contributed talk, *Moving Beyond Compatibility: The Future of the Gibbs Sampler?*
98. The Joint Statistical Meetings, Toronto, Ontario, August 2004, Special contributed talk, *Reconstruction of the Physical Environment of a Stellar Corona*.
99. The Joint Statistical Meetings, New York, New York, August 2002, Special contributed talk, *Incompatibility in Gibbs Samplers*.
100. The Valencia International Meeting on Bayesian Statistics, Tenerife, Spain, June 2002, Poster, *Marginal Markov Chain Monte Carlo Methods*.
101. 199th Meeting of the American Astronomical Society, Washington, D. C., January 2002, Special contributed talk, *Statistical Analysis of Spectra with Many Lines*.
102. High Energy Astrophysics Division Meetings, Honolulu, Hawaii, November 2000, Special contributed talk and poster, *Data Augmentation, Hierarchical Models, and Markov chain Monte Carlo*.
103. The Joint Statistical Meetings, Indianapolis, Indiana, August 2000, Special contributed talk, *Analysis of High Energy Spectra Obtained with the Chandra Satellite X-ray Observatory*.
104. 196th Meeting of the American Astronomical Society, Rochester, New York, June 2000, Several contributed posters.
105. Sixth World Meeting of the International Society for Bayesian Analysis, Hersonissos, Greece, June 2000, Poster, *Bayesian Analysis of High Resolution Spectral Data*.

106. The Biometric Society ENAR Meetings, Chicago, Illinois, March 2000, Talk, *Fitting Mixed Models Using Fast EM-Type Algorithms*.
107. Case Studies in Bayesian Statistics Workshop 5, Pittsburgh, Pennsylvania, September 1999, Poster, *Bayesian Analysis of High-Resolution Spectral Data for the Chandra X-ray Satellite*.
108. The Joint Statistical Meetings, Baltimore, Maryland, August 1999, Special contributed talk, *The Nested EM Algorithm*.
109. The 194th Meeting of the American Astronomical Society, Chicago, Illinois, June 1999, Special contributed talk, *Bayesian Analysis of High-Resolution Energy Spectra*.
110. High Energy Astrophysics Division Meetings, Charleston, South Carolina, March 1999, Talk, *Analysis of Energy Spectra with Low Photon Counts via Bayesian Posterior Simulation*.
111. The Joint Statistical Meetings, Dallas, Texas, August 1998, Talk, *The Art of Data Augmentation*.
112. The Valencia International Meeting on Bayesian Statistics, Valencia, Spain, June 1998, Poster, *The Art of Data Augmentation*.
113. The Joint Statistical Meetings, Anaheim, California, August 1997, Talk, *Efficient Data Augmentation and Model Parameterization for EM and MCMC*.
114. The Joint Statistical Meetings, Chicago, Illinois, August 1996, Talk, *Counting Salient Subpopulations in Finite Mixture Distributions*.
115. The Joint Statistical Meetings, Orlando, Florida, August 1995, Talk, *Augmenting Data Wisely to Speed up the EM Algorithm*.
116. The Joint Statistical Meetings, Toronto, Ontario, August 1994, Talk, *Permuting CM Steps Within the ECM Algorithm*.
117. The Annual Meeting of the IMS, Chapel Hill, North Carolina, June 1994, Talk, *Maximum Likelihood Estimation via the ECM Algorithm: Computing the Asymptotic Variance*.
118. The Biometric Society ENAR Spring Meetings, Cleveland, Ohio, March 1994, Talk, *Fitting Log-Linear Models to Contingency Tables with Incomplete Observations*.

UNIVERSITY
SERVICE

Coordinating Committee on Graduate Affairs, Academic Senate, University of California, 9/06 – 1/07 and 9/07 – 3/08.

CAMPUS SERVICE

Senate Cabinet, University of California, Irvine, 9/06 – 12/06 and 9/07 – 3/08.

Divisional Senate Assembly, University of California, Irvine, 9/06 – 12/06 and 9/07 – 3/08.

Graduate Council (Chair), Academic Senate, University of California, Irvine, 9/06 – 12/06 and 9/07 – 3/08.

Special Committee on Graduate Student Housing (Chair), Academic Senate, University of California, Irvine, 9/06 – 12/06 and 9/07 – 3/08.

Graduate Council, Academic Senate, University of California, Irvine, 9/05 – 3/08 and 7/08 – 6/09.

Special Committee on Graduate Student Housing, Academic Senate, University of California, Irvine, 9/08 – 6/09.

Ad Hoc Review Committee to evaluate Andrew Policano's service as Dean in the Paul Merage School of Business, University of California, Irvine, 12/08 – 2/09.

Cancer Center Biostatistics Shared Resource Advisory Committee, College of Medicine, University of California, Irvine, 9/04 – 5/05.

SCHOOL SERVICE

Research Committee, School of Information and Computer Sciences, University of California, Irvine, 7/08 – 6/11.

Graduate Policy Committee, School of Information and Computer Sciences, University of California, Irvine, 7/07 – 6/08.

Executive Committee, School of Information and Computer Sciences, University of California, Irvine, 7/03 – 6/05 and 7/06 – 6/07.

Space Allocation Committee, School of Information and Computer Sciences, University of California, Irvine, 7/03 – 6/04 and 7/05 – 6/06.

Computing Committee, School of Information and Computer Sciences, University of California, Irvine, 7/03 – 6/04.

Faculty Search Committee (Scientific Computing Position), Department of Computer Science, University of California, Irvine, 11/03 – 4/04.

DEPARTMENTAL
SERVICE

Chair, Department of Statistics, University of California, Irvine, 07/10 – present.

Acting Chair, Department of Statistics, University of California, Irvine, 10/07 – 12/07 and 12/08 – 4/09.

Faculty Search Committees, Department of Statistics, University of California, Irvine, 11/03 – 4/04, 11/04 – 4/05, 12/05 – 4/06, and 12/06 – 4/07.

Colloquium Co-Chair (with Padharic Smyth), Department of Statistics, University of California, Irvine, *Statistics and Computing*, 9/04 – 6/05.

Director of Undergraduate Studies (Head Tutor), Department of Statistics, Harvard University, 9/96 – 6/02.

Colloquium Chair, Department of Statistics, Harvard University, 9/97 – 6/03.