

Mark H. Hansen

University of California, Los Angeles
8125 Mathematical Sciences Building
Box 951554
Los Angeles, CA 90095-1554

Tel: (323) 828-6876
FAX: (310) 206-5658
cocteau@stat.ucla.edu
www.stat.ucla.edu/~cocteau

Education

- Department of Statistics, University of California at Berkeley 1989 – 1994
- Ph.D. Degree in Statistics, 1994
Dissertation Title: *Extended Linear Models, Multivariate Splines and ANOVA*
 - M.A. Degree in Statistics, 1991
- Department of Mathematics, University of California at Berkeley 1987 – 1989
- M.S. program (transferred to the Statistics Department)
- Department of Mathematics, University of California at Davis 1982 – 1987
- B.S. in Applied Mathematics
Graduated with High Honors

Research Positions

- Professor, Department of Statistics, University of California, Los Angeles Spring 2009 – Present
- Associate Professor of Statistics Spring 2003 – Spring 2009
- Courtesy appointment, Department of Electrical Engineering Fall 2007 – Present
- Courtesy appointment, Department of Design|Media Arts Spring 2003 – Present
- Projects: · Non-professional practices of data collection and analysis
- Participatory urban sensing
 - Data visualization and design
 - The (realtime) statistics of boxing
 - Statistical methods for embedded sensing
- Member of the Technical Staff, Bell Laboratories Summer 1994 – Winter 2002
- Projects: · Web statistics, large data bases
- Experiments with sound in support of data analysis
 - The practical use of spline spaces for function estimation
 - Quality improvement in semiconductor manufacturing
- Invited Visiting Research Positions
- School of Operations Research and Industrial Engineering, Cornell University February – April, 1999
- Institute for Statistics and Econometrics, Humboldt-Universität zu Berlin March, 1997
- Australian Graduate School of Management, University of New South Wales November, 1996

Research Consulting

The New York Times Company, Research and Development Lab 2010–Present
Data collection methods, modeling and visualization to explore the sharing of Times’ content across Twitter

Home Box Office (HBO), Emerging Technologies 2009–Present
Statistical algorithms to collect, analyze and present data from live boxing events

New York City, et al. versus the Department of Commerce, et al. Fall 1991 – Spring 1992
Matters of Census adjustment relating to testimony by UC Berkeley Professors K. Wachter and L. Breiman

Advising

PhD Students

Kyle Hasenstab (Stat), Nathan Langholz (Stat), Amelia McNamara (Stat), Jeroen Ooms (Stat), Nathan Yau (Stat), Sheela Nair (Stat, 2009), Adam Sugano (Stat, 2008), Andrew Baek (Stat, 2006)

MFA and MS Students

Jihyun Kim (DMA, 2008), Matt Kugizaki (Stat, 2009), Aaron Siegel (DMA, 2008)

PhD Committees

Chen Avin (CS, 2005), Roja Bandari (EE), David Browne (EE, 2007), Kevin Eustice (CS, 2008), Hossein Falaki (CS, 2012), Neda Farzinnia (Stat, 2006), Brian Fulkerson (CS, 2009), Sushrut Gautam (Math, 2009), Sabrina He (Stat, 2005), Seth Hill (Poli Sci, 2010), Mark Hopkins (CS, 2005), Weihua Huang (Stat, 2005), Josh Hyman (CS, 2009), Michael Karsh (Stat, 2011), Donnie Kim (CS, 2012), Kathy Kong (EE, 2007), Brian Kriegler (Stat, 2006), Irina A. Kukuyeva (Stat), Mohit Lad (CS, 2006), Jason Lenderman (Stat), Brent Longstaff (CS), Hongyan Ma (IS, 2008), Eitan Mendelowitz (CS, 2009), Barzan Mozafari (CS, 2009), Minyoung Mun (CS, 2009), Kevin Ni (EE, 2008), Rakhee Patel (Stat, 2011), Andrew Parker (CS, 2009), Alberto Pepe (IS, 2010), Mohammad Rahimi (CS, USC, 2005), Nithya Ramanathan (CS, 2007), Sasank Reddy (EE, 2010), Randall Rojas (Stat, 2010), Vids Samanta (CS), Tom Schoelhammer (CS, 2008), Yijing Shen (Stat, 2007), Jason Shen (Stat, 2011), Dan Shiber (Math, 2008), Salih Tileylioglu (Civil Engin, 2008), Che-Chuan Wu (Civil Engin, 2011) Shenglin Yang (EE, 2006), Bin Zhang (CS, USC, 2008), Qian Zhong (Stat, 2007)

MS Committees

Shaun Ahmadian (CS), Laura Balzano (EE, 2006), Anna Bargagliotti (Stat, 2007), Libby Bond (Stat), Elizabeth Bruch (Stat, 2009), John Bucci (Stat, 2006), Nabil Hajj Chehade (EE, 2006), Victor Chen (EE, 2007), Jackie Dacosta (Stat, 2006), Chia-ho Lin (Stat, 2005), Keith Mayoral (CS, 2010), Amarjeet Singh (EE, 2006), Michael Stealey (EE, 2006)

MFA Committees

Christo Allegra (DMA, 2009), Sean Dockray (DMA, 2005), Scott Hessels (DMA, 2005), Andrew Hieronymi (DMA, 2006), Aaron Koblin (DMA, 2007), Chris O’Leary (DMA, 2008), Morrow Pettigrew (DMA, 2007)

Publications

N. Langholz, M. Hansen, J. Edis, Z. Eveland, B. Langel, M. Paschke, J. Wallack, “Pulling Punches: A Nonparametric Regression Approach to Punch Force Estimation,” to be submitted to the *Journal of Quantitative Analysis in Sports*

- J. Kang, K. Shilton, J. Burke, D. Estrin, M. Hansen (2012), "Self-surveillance privacy," *Iowa Law Review*, Vol. 97, p. 809
- T. Ko, J. Hyman, E. Graham, M. Hansen, D. Estrin, and S. Soatto (2010), "Embedded Imagers: Detecting, Localizing and Recognizing Objects and Events in Natural Habitats, In Proceedings of Sensor Networks and Applications
- S. Reddy, M. Mun, J. Burke, D. Estrin, M. Hansen, M. Srivastava (2010), "Using Mobile Phones to Determine Transportation Modes", *ACM Transactions on Sensor Networks (TOSN)*, Vol. 6, No. 2
- M. Mun, S. Hao, N. Mishra, K. Shilton, J. Burke, D. Estrin, M. Hansen, R. Govindan (2010), "Personal Data Vaults: A Locus of Control for Personal Data Streams," In Proceedings of The 6rd International Conference on emerging Networking EXperiments and Technologies (CoNEXT) 2010, Philadelphia, PA
- J. Hicks, N. Ramanathan, D. Kim, M. Monibi, J. Selsky, M. Hansen, D. Estrin (2010), "AndWellness: An Open Mobile System for Activity and Experience Sampling," In proceedings of Wireless Health 2010: Academic and Research Conference, La Jolla, CA, October 5-7, 2010
- S. Reddy, D. Estrin, M. Hansen, M. Srivastava (2010), "Examining Micro-Payments for Participatory Sensing Data Collections," in the International Conference on Ubiquitous Computing (UbiComp), September 2010
- K. Ni, N. Ramanathan, C. Nabil, L. Balzano, S. Nair, S. Zahedi, G. Pottie, M. Hansen, and M. Srivastava (2009), "Sensor Network Data Fault Types," *ACM Transactions on Sensor Networks (TOSN)*, Vol.5, No.3, 2009
- M. Mun, S. Reddy, K. Shilton, N. Yau, P. Boda, J. Burke, D. Estrin, M. Hansen, E. Howard, and R. West, (2009) "PEIR, the Personal Environmental Impact Report, as a Platform for Participatory Sensing Systems Research," The 7th Annual International Conference on Mobile Systems, Applications and Services, Mobisys 2009
- J. Hyman, M. Hansen, and D. Estrin (2008), "Estimating the Spectral Reflectance of Natural Imagery Using Color Image Features," ImageSense 2008, an ACM Sensys Workshop
- S. Reddy, K. Shilton, J. Burke, D. Estrin, M. Hansen, M. Srivastava (2008), "Evaluating Participation and Performance in Participatory Sensing," in Proceedings of International Workshop on Urban, Community, and Social Applications of Networked Sensing Systems - UrbanSense08
- K. Shilton, N. Ramanathan, V. Samanta, J. Burke, D. Estrin, M. Hansen, and M. Srivastava (2008), "Participatory Design of Urban Sensing Networks: Strengths and Challenges," in Proceedings of the Participatory Design Conference
- S. Reddy, J. Burke, D. Estrin, M. Hansen, M. Srivastava (2008), "Determining Transportation Mode On Mobile Phones," in Proceedings of the 12th IEEE International Symposium on Wearable Computers (ISWC)
- M. Mun, D. Estrin, J. Burke and M. Hansen (2008), "Parsimonious Mobility Classification using GSM and WiFi Traces," In Proceedings of the Fifth Workshop on Embedded Networked Sensors (HotEmNets 2008)
- K. Shilton, J. Burke, D. Estrin, M. Hansen, and M. Srivastava (2008), "Participatory Privacy in Urban Sensing," in Proceedings of the International Workshop on Mobile Device and Urban Sensing (MODUS 2008)
- D. Cuff, M. Hansen, and J. Kang (2008), "Out of the woods: Urban sensing," *Communications of the ACM*, Vol. 51 (3), pages 24-33
- M. Hansen, B. Rubin, H. C. Steiner, and T. Walker (2008), "Words to look at, words to listen to: Designing a 'proli- phonic' display for the lobby of the New York Times Building," in Proceedings of the 2008 Linux Audio Conference

- E. Agapie, G. Chen, D. Houston, E. Howard, J. Kim, M. Y. Mun, A. Mondschein, S. Reddy, R. Rosario, J. Ryder, A. Steiner, J. Burke, D. Estrin, M. Hansen, M. Rahimi (2008), "Seeing Our Signals: Combining location traces and web-based models for personal discovery," in Proceedings of the 9th IEEE Workshop on Mobile Computing Systems and Applications (HotMobile 2008)
- G. Chen, J. Cho, and M. Hansen (2008), "On the brink: Searching for drops in sensor data," in Proceedings of the 11th International Conference on Extending Database Technology (EDBT08)
- J. Hyman, E. Graham, M. Hansen, and D. Estrin (2007), "Imagers as Sensors: Correlating Plant CO₂ Uptake with Digital Visible-Light Imagery," in Proceedings of the Fourth International Workshop on Data Management for Sensor Networks
- S. Reddy, A. Parker, J. Hyman, J. Burke, D. Estrin, and M. Hansen (2007), "Image Browsing, Processing, and Clustering for Participatory Sensing: Lessons From a DietSense Prototype," in Proceedings of EmNets 07
- A. Singh, M. Batalin, M. Stealey, V. Chen, B. Jordan, J. Fisher, T. Harmon, M. Hansen, and W. Kaiser (2007), "Autonomous Robotic Sensing Experiments at San Joaquin River," in Proceedings of the 2007 IEEE International Conference on Robotics and Automation
- A. Singh, M. Batalin, M. Stealey, V. Chen, M. Hansen, T. Harmon, G. Sukhatme, and W. Kaiser (2007), "Mobile robot sensing for environmental applications," in Proceedings of FSR 2007, the 6th International Conference on Field and Service Robotics
- A. Singh, M. Batalin, M. J. Stealey, B. Zhang, Amit Dhariwal, B. Stauffer, S. Moorthi, C. Oberg, A. Pereira, V. Chen, Y. Lam, D. Caron, M. Hansen, W. J. Kaiser, G. Sukhatme (2007), "Human Assisted Robotic Team Campaigns for Aquatic Monitoring," *Journal of Field Robotics*, Vol. 24 , Issue 11-12, pages 969–989
- M. Balazinska, A. Deshpande, M. Franklin, P. B. Gibbons, J. Gray, M. Hansen, M. Liebhold, S. Nath, A. Szalay, V. Tao (2007), "Data management in the worldwide sensor web," *IEEE Pervasive Computing*, Vol. 6, No. 2, pages 30-40
- S. Reddy, G. Chen, B. Fulkerson, S.-J. Kim, U. Park, N. Yau, J. Cho, M. Hansen and J. Heidemann (2007), "Sensor-Internet Share and Search: Enabling Collaboration of Citizen Scientists," Workshop for Data Sharing and Interoperability, IPSN 07
- S. Tileylioglu, M. Hansen, R. Nigbor (2007), "Elevators as a repeatable excitation source for structural health monitoring in buildings," in Proceedings of the 6th International Workshop on Structural Health Monitoring
- M. Hamilton, E. Graham, P. Rundel, M. Allen, W. Kaiser, M. Hansen, and D. Estrin (2007), "New Approaches in Embedded Networked Sensing for Terrestrial Ecological Observatories," *Environmental Engineering Science*, 24(2).
- Wallis, J., Borgman, C.L., Mayernik, M.S., Pepe, A., Ramanathan N., and Hansen, M. (2007) "Know Thy Sensor: trust, data quality, and data integrity in scientific digital libraries," in Proceedings of the 11th European Conference on Research and Advanced Technology for Digital Libraries
- J. Burke, D. Estrin, M. Hansen, A. Parker, N. Ramanathan, S. Reddy, M. B. Srivastava (2006), "Participatory sensing," in Proceedings of the World Sensor Web Workshop, ACM Sensys 2006, Boulder, Colorado

- A. Parker, S. Reddy, T. Schmid, S. Ganeriwal, K. Chang, J. Burke, M. Hansen, M. Srivastava, D. Estrin, V. Pasxon, and M. Allman (2006), "Network System Challenges in Selective Sharing and Verification for Personal, Social, and Urban-Scale Sensing Applications," in Proceedings of the Fifth Workshop on Hot Topics in Networks (HotNets-V)
- K. Chang, N. Yau, M. Hansen, and D. Estrin (2006), "SensorBase.org - A Centralized Repository to Slog Sensor Network Data," in Proceedings of the International Conference on Distributed Networks(DCOSS)/EAWMS
- N. Ramanathan, L. Balzano, D. Estrin, M. Hansen, T. Harmon, J. Jay, W. Kaiser, G. Sukhatme (2006) Designing Wireless Sensor Networks as a Shared Resource for Sustainable Development, in Proceedings of the First International Conference on Information and Communication Technologies and Development
- J. Baek, M. Hansen, R. Nigbor, S. Tileylioglu, (2006) "Elevators as an excitation source for structural health monitoring," in Proceedings of the 4th World Conference on Structural Control Monitoring
- S.Ganeriwal, D. Ganesan, M. Hansen, M. B. Srivastava, D. Estrin (2005), "Rate Adaptive Time Synchronization in Sensor Networks," ACM Sigmetrics (poster)
- M. Rahimi, M. Hansen, B. Kaiser, G. Sukhatme, D. Estrin (2005), "Adaptive sampling for environmental field estimation using robotic sensors," in Proceedings of IROS 2005
- M. Batalin, M. Rahimi, Y. Yu, S. Liu, G. Sukhatme, W. Kaiser, M. Hansen, G. Pottie and D. Estrin (2004), "Call and Response: Experiments in sampling the environment," in Proceedings of ACM SenSys '04
- M. H. Hansen and B. Yu (2003), "Minimum description length model selection criteria for generalized linear models," *Science and statistics*, IMS Lecture Notes – Monograph Series, Vol. 40
- Nonlinear Estimation and Classification* (2003), D. D. Denison, M. H. Hansen, C. C. Holmes, B. Mallick and B. Yu (Editors), Lecture Notes in Statistics, Vol. 171, Springer-Verlag
- R. Sen and M. H. Hansen (2003) "Predicting a Web user's next request based on log data," *Journal of Computational and Graphical Statistics*, Vol. 12, No. 1 (Based on this paper, R. Sen won the Student Paper Competition sponsored by the ASA Section on Statistical Computing)
- M. H. Hansen and C. Kooperberg (2002) "Spline Adaptation in Extended Linear Models,"(with discussion) *Statistical Science*, Vol. 17, No. 1, pages 2-51
- O. D. Patterson and M. H. Hansen (2002), "The impact of tolerance on kill ratio estimation for memory," *IEEE Transactions Semiconductor Manufacturing*, Vol. 15, No. 4, pages 404-410
- M. H. Hansen and B. Rubin (2002), "Listening Post," accepted for *ICAD 2002*
- M. H. Hansen and E. Shriver (2001) "Using navigation data to improve IR functions in the context of Web search," in Proceedings of CIKM 2001
- M. H. Hansen and B. Yu (2001), "Model Selection and the Principle of Minimum Description Length," *JASA*, Vol. 96, No. 454, pages 746-774
- T. Hermann, M. H. Hansen and H. Ritter (2001) "Sonification of Markov chain Monte Carlo simulations," in Proceedings of ICAD 2001, Hiipakka, J., Zacharov, N. and Takala, T., Eds., pages 208-216

- M. H. Hansen and B. Rubin (2001) "Experiencing information systems through sound," in Proceedings of ICAD 2001, Hiipakka, J., Zacharov, N. and Takala, T., Eds., pages 10-15
- B. Rubin and M. H. Hansen (2001), "Yahoo/Bounce," on *State of the Union, 2001*, produced by Elliot Sharp, Electronic Music Foundation, Inc. (Invited contribution to a 3-disc set)
- K. August, M. H. Hansen and E. Shriver (2001) "Mobile Web Searching," *Bell Labs Technical Journal*, Vol. 6, pages 84-98
- M. H. Hansen and B. Yu (2000), "Wavelet Thresholding via MDL: Simultaneous Denoising and Compression," *IEEE Transactions on Information Theory*, Vol. 45, No. 5, pages 1778-1788
- V. N. Nair, M. H. Hansen and J. Shi (2000), "Statistics in Advanced Manufacturing," (Year 2000 Commemorative Vignette on Engineering and the Physical Sciences), *JASA*, Vol. 95, No. 451, pages 1002-1005
- M. H. Hansen and B. Rubin (2000), "The audiences would be the artists and their life would be the arts," *IEEE Multi-Media*, Vol. 7, No. 2, pages 6-9
- O. Patterson and M. H. Hansen (2000) "The impact of tolerance on kill ratio estimation for memory," in Proceedings of the 2000 IEEE/SEMI Advanced Semiconductor Manufacturing Conference & Workshop (ASMC)
- O. Patterson, M. H. Hansen, and T. Henry (1999), "Spatial Analysis of Defect and Electrical Test Wafer Maps for Yield Limiting Defect Reduction," in the Proceedings of SEMATECH
- M. H. Hansen and B. Yu (1999), "Bridging AIC and BIC: An MDL Model Selection Criterion," in Proceedings of the IT Workshop on Detection, Estimation, Classification and Imaging
- M. H. Hansen and B. Yu (1999), "Assessing MDL in Wavelet Denoising and Compression," in Proceedings of the Information Theory Workshop 1999
- M. H. Hansen, C. Kooperberg and S. Sardy (1998), "Triogram Models," *Journal of the American Statistical Association*, Vol. 93, pages 101-119
- J. M. Chambers, M. H. Hansen, D. A. James and D. Temple Lang (1998), "Distributed Computing with Data: A CORBA-Based Approach," *Computing Science and Statistics*, Vol. 30, pages 518-525
- C. Stone, M. H. Hansen, C. Kooperberg, Y. Truong (1997), "Polynomial Splines and Their Tensor Products in Extended Linear Modeling," (with discussion), *The Annals of Statistics*, Vol. 25, No. 4, pages 1371-1470
- M. H. Hansen, V. Nair and D. Friedman (1997), "Monitoring Wafer Map Data from Integrated Circuit Fabrication Processes for Spatially Clustered Defects," *Technometrics* Vol. 39, No. 3. (Chosen for the *Technometrics* Invited Session at the Fall Technical Conference in Baltimore, Maryland, 1997)
- D. Friedman, M. H. Hansen, V. Nair and D. James (1997), "Model-free estimation of some yield metrics in integrated circuit manufacturing," *IEEE Transactions on Semiconductor Manufacturing*, Vol. 10, No. 3
- M. H. Hansen and D. James (1997), "A Computing Environment for Spatial Data Analysis in the Microelectronics Industry," *Bell Labs Technical Journal*, Vol. 2, No. 1, pages 114-129
- M. H. Hansen and V. Nair (1996), "Process and Productivity Improvement in Semiconductor Manufacturing," *Computing Science and Statistics*, Vol. 27, pages 3-7

Patents

<i>System for and method of generating and visualizing sharing event cascade structures associated with content sharing events that occur across a network</i> with J. Thorp Assignee: The New York Times Company	Filed April, 2012
U.S. Patent No. 7,194,454 <i>Method for organizing records of database search activity by topical relevance</i> with E. Shriver	March, 2007
U.S. Patent No. 6,647,383 <i>System and method for providing interactive dialogue and iterative search functions to find information</i> with K. August, C. Chuang, D. Lee, M. McNerney, C. Nohl, P. Ong, E. Shriver, and T. Sizer	November, 2003
U.S. Patent No. 6,449,604 <i>Method for characterizing and visualizing patterns of usage of a Web site by network users (II)</i> with W. Sweldens	September, 2002
U.S. Patent No. 6,424,745 <i>Method and Apparatus for Object Recognition</i> with H. Hess, P. Mitra, and G. Thomas	July, 2002
U.S. Patent No. 6,182,097 <i>Method for characterizing and visualizing patterns of usage of a Web site by network users (I)</i> with W. Sweldens	January, 2001
U.S. Patent No. 6,075,594 <i>System and Method for Spectroscopic Product Recognition and Identification</i> with D. X. Sun and G. Thomas	June, 2000
U.S. Patent No. 5,240,866 <i>A Method for Characterizing Defects in Integrated Circuits</i> with D. Friedman, J. R. Hoyer and V. N. Nair	August, 1993

University Service

Statistics Department

Vice Chair for Graduate Studies	June, 2003 – June, 2010
Faculty Adviser to the Statistics Graduate Student Association	December, 2003 – June, 2010
Chair, Admissions Committee	December, 2003 – June, 2010
Chair, Ph.D. Curriculum Committee	December, 2003 – April, 2004

University committees

Faculty Executive Committee	Fall, 2008 – 2009
Graduate Council and Committee on Degree Programs	Fall, 2003 – Spring, 2006
Co-Chair Committee on Degree Programs	Fall, 2005 – Spring, 2006

Review Committee for the Department of Epidemiology	Winter, 2004
Chair, Review Committee for the Department of Management	Winter, 2005
Chair, Review Committee for the Department of Classics	Winter, 2006

Professional Service

Boards and General Advising

Advisory Board, OpenIntro	January, 2012 – Present
Advisory Panel, StoryCorps (Exploring how best to “mobilize the collection”)	July, 2011 – Present
Advisory Committee, Data Without Borders	Summer, 2011 – Present

Editorial service

Associate Editor, <i>Journal of the American Statistical Association</i>	January, 1999 – April, 2003
Associate Editor, <i>Technometrics</i>	October, 1998 – April, 2003
Co-Editor, <i>Statistical Computing and Graphics Newsletter</i>	1996 – 2000
Served as a referee for the <i>Annals of Statistics</i> , <i>Journal of the American Statistical Association</i> , <i>Journal of the Royal Statistical Society</i> , <i>Journal of Computational and Graphical Statistics</i> , <i>Technometrics</i> , <i>IEEE Transactions on Semiconductor Manufacturing</i> , <i>IEEE Transactions on Information Theory</i> , and the <i>Scandinavian Journal of Statistics</i> .	

Elected positions

- 2001 Chair, Statistical Computing Section of the American Statistical Association
- 1999 JSM Program Chair, Statistical Computing Section of the American Statistical Association

Conference Organization

Co-Organizer, <i>User-Centered Modeling</i> Institute for Mathematics and its Applications, University of Minnesota	May, 2012
Co-Organizer, <i>Explorations in statistics</i> Undergraduate program in statistics	Summers, 2009–2012
Co-Organizer, <i>Workshop: Integrating Computing into the Statistics Curricula</i> University of California, Berkeley, CA	Summer, 2008
Co-Organizer, <i>Computing in Statistics</i> Mathematical Sciences Research Institute, Berkeley, CA	Spring, 2007
Co-Organizer, <i>Data Sharing and Interoperability on the World-wide Sensor Web</i> Workshop held as part of IPSN07, Cambridge, MA	Spring, 2007
Co-Organizer, <i>Mathematical Challenges and Opportunities in Sensor Networks</i> Institute for Pure and Applied Mathematics, UCLA	Winter, 2007
Co-Organizer, <i>Visualization and its role in the practice of statistics</i> Undergraduate program in statistics	Summer, 2006

Co-Organizer, <i>Visualization and its role in the practice of statistics</i> Undergraduate program in statistics	Summer, 2005
Program committee, <i>Statistics and Information Technology</i> 2005 Graybill Conference	Summer, 2005
Program committee, <i>Workshop on High Dimensional Data Analysis</i> Institute for Pure and Applied Mathematics, UCLA	Fall, 2004
Co-Organizing committee, <i>Simulation and Reenactment</i> Banff New Media Institute	Spring, 2004
Co-Organizer, <i>Workshop on Complexity and Inference</i> DIMACS Special Year on Computational Information Theory and Coding	Spring, 2003
Co-Organizer, <i>Modern Statistical Computing and Graphics in Academia</i> One day workshop to explore how best to promote and sustain the field of Statistical Computing.	Spring, 2001
Co-Organizer, <i>Nonlinear Estimation and Classification</i> A two-week workshop held at the Mathematical Sciences Research Institute (Berkeley, CA) emphasizing interdisciplinary approaches to modeling large, complex data. Proceedings published by Springer-Verlag.	Spring, 2001
Program committee, <i>12th International Conference on Scientific and Statistical DBM</i>	July, 2000
Program committee, <i>Joint Statistical Meetings, Section on Statistical Computing</i>	August, 1999
Co-Organizer, <i>Statistical Science and the Internet</i> A mini-conference designed to explore the impact that emerging Internet-related tools will have on the way we communicate statistical ideas.	July, 1998
Member, <i>IMS committee on New Researchers</i>	1994 – 1995

Grants and Fellowships

Co-Principal Investigator, National Science Foundation DUE Grant MOBILIZE: Mobilizing for Innovative Computer Science Teaching and Learning (\$12.5M)	2010–Present
Co-Principal Investigator, National Science Foundation NSF/STC CENS, The Center for Embedded Networked Sensing (\$18M)	2007–2012
Co-Principal Investigator, National Science Foundation NSF/IIS Ethics Education for Participatory Urban Sensing (\$300K)	2008–2011
Co-Principal Investigator, National Science Foundation CNS Grant NeTS-FIND: Network Fabric for Personal, Social, and Urban Sensing Applications (\$1.6M)	2006–2010
Co-Principal Investigator, National Science Foundation CNS Grant NeTS-FIND: Sensor-Internet Sharing and Search (\$1.4M)	2006–2008
Co-Principal Investigator, National Science Foundation CNS Grant NeTS-NOSS: Algorithms and System Support for Data Integrity in Wireless Sensor Networks (\$1.4M)	2005–2008

Co-Principal Investigator, National Science Foundation CNS Grant Computing in Statistics: Model Courses and Curricula	2006-2009
Media Arts Fellowship, funded by the Rockefeller and Ford Foundations Awarded for <i>Today</i> , a collaborative performance piece with B. Rubin	April, 2005
Rockefeller Foundation Grant In support of <i>Listening Post</i> , a ten-week installation at the Whitney Museum of American Art	September, 2002
Rockefeller Foundation Grant In support of <i>Listening Post</i> , a two-week installation at the Brooklyn Academy of Music	May, 2001
Co-Principal Investigator, National Science Foundation DMS Grant Title: Statistical Methods for Process Control and Improvement in Advanced Manufacturing	1998-2000

Exhibitions, Reviews and News Coverage

Current commissions

<i>Timescapes</i> (Hansen, Rubin and Thorp) Large-scale projection for the 9/11 Memorial Museum	Opening 2013
<i>NYU Law School</i> (Hansen, Rubin and Thorp) Large-scale projection for lobby of the Law School	Opening 2012
<i>eBay Campus</i> (Thorp and Hansen) Large-scale projection for lobby of the eBay campus, part of the 01 Biennial	Opening 2012

Exhibitions and Collections

<i>Moveable Type</i> (Hansen and Rubin) Permanent installation, The New York Times Building	2008–Present
<i>Terre Natale</i> (Diller Scofidio + Renfro, Hansen, Kurgan and Rubin) Museum of Modern Art, New York	Summer, 2011
Alhóndiga Bilbao	Summer, 2010
Kunsthal Charlottenborg, Copenhagen	Winter, 2009
Fondation Cartier, Paris	Spring, 2009
<i>Listening Post</i> (Hansen and Rubin) London Science Museum, London	2008–Present
ARoS Aarhus Kunstmuseum, Aarhus	2009
Museo Centro de Arte Reina Sofía, Madrid	2008
The Yerba Buena Center, San Francisco	2007
San Jose Museum of Art, San Jose	2005–2006
Whitney Museum of American Art, New York	2002–2003

<i>Shuffle</i> (The Elevator Repair Service, Hansen and Rubin)	
PEN World Voices Festival, New York	2012
The Prague Quadrennial, Prague	2011
The New York Public Library, New York	2011

Reviews and News Coverage

“Data as Design”, profile appearing in <i>The New York Academy of Sciences Magazine</i>	Winter, 2012
“See the World Rebalancing with PopTech’s Data Viz App,” Good Magazine Business Blog	October, 2011
“3 Classic Novels. 22 Minutes. Why Not?” <i>The New York Times</i>	May, 2011
“Hemingway, Faulkner and Fitzgerald: The Remix,” <i>The New Yorker Magazine Blog</i>	May, 2011
“The New York Times R&D Lab has built a tool that explores the life stories take in the social space,” Nieman Journalism Lab Blog	April, 2011
“3-D Model Unlocks Secrets Of Twittiverse,” Fast Company Design Blog	Spring, 2011
“Art is no longer just a feast for the eyes...”, <i>The Sunday Times</i>	March, 2008
“Tune in to the glorious gobbledegook of global gabble”, <i>The Times of London</i>	February, 2008
“Listening to internet chatter”, <i>BBC News</i>	February, 2008
“A portrait of 100,000 people logged on to a global chatroom”, <i>The Independent</i>	February, 2008
“Get Me Rebuild”, <i>New York Magazine</i>	December, 2007
“Moveable Type”, <i>NPR’s On the Media</i>	October, 2007
“News Flows, Consciousness Streams: The Headwaters of a River of words”, <i>The New York Times</i>	October, 2007
“‘Listening Post’ brings the Internet into view” <i>San Francisco Chronicle</i>	August, 2007
“2007: The year in arts and entertainment” <i>San Francisco Chronicle</i> (Listening Post makes the list of top 10 Arts events in 2007)	December, 2007
“2006: The year in arts and entertainment” <i>San Francisco Chronicle</i> (Listening Post makes the list of top 10 Arts events in 2006)	December, 2006
“Screen Capture” <i>Architect Magazine</i>	October , 2006
“Chat room art” <i>NPR’s Here and Now</i>	February , 2004
Review of <i>Listening Post</i> Peter Eleey, <i>Frieze Magazine</i>	April, 2003
“Orange and White” Adam Gopnik, <i>The New Yorker Magazine</i>	March, 2003
Cover story on <i>Listening Post</i> , <i>The Linux Journal</i>	March, 2003
“A fly on chat-room walls,” Jad Abumrad, <i>NPR’s Weekend Edition Saturday</i>	February, 2003
Review of <i>Listening Post</i> Roberta Smith, <i>The New York Times</i>	February, 2003

“Poised between old and New” Eric Gibson, <i>The Wall Street Journal</i>	February, 2003
“Listening Post gives bits, bytes the sound of music” M. McFarland, <i>The Seattle Times</i>	November, 2002
“Making an Opera From Cyberspace’s Tower of Babel” Matthew Mirapaul, <i>The New York Times</i>	December, 2001
“Listening Post,” by Jad Abumrad, <i>NPR’s Studio 360</i>	December, 2001

Awards

<i>Listening Post</i> received the Golden Nica for Interactive Art at Ars Electronica (winners in other categories included Wikipedia and Creative Commons)	May, 2004
<i>Listening Post</i> received a Webby Award in the category of NetArt	May, 2003
<i>Listening Post</i> was nominated for a <i>Wired Magazine</i> Rave Award	December, 2002

Invited Talks

Keynote address, The 43 rd Symposium on the Interface, The Future of Statistical Computing: Internet Scale Data, Flexible Modeling and Visualization	May, 2012
<u>“What makes a good data visualization?” The New York Public Library</u> Invited panelist	April, 2012
<u>Data Mining & Visualization for the Humanities Workshop, NYU</u> Invited talk, “To the Isdr;tor of the 1’etc-YerL Timca: Text as data”	March, 2012
Invited participant, Spark Camp (focus on big data)	January, 2012
Invited seminar, Interactive Telecommunications Program, NYU	November, 2011
<u>UCLA Science Faculty Research Colloquium</u> Invited talk, “Repetition and Surprise, Rehearsal and Reinvention”	January, 2012
<u>Invited discussion, PopTech</u> “Harnessing the Power of Open Data”	October, 2011
Invited seminar, Yale Department of Statistics	August, 2011
<u>CONET (Cooperating Objects Network Of Excellence) Summer School, Bertinoro, Italy</u> Invited seminar on Participatory Sensing	July, 2011
Invited talk, Eyeo Festival	June, 2011
<u>New York Academy of Sciences</u> Invited talk on The Intersection of Data and Design	May, 2011
<u>New York Open Statistical Programming Meetup</u> Invited talk, “Teaching Data Analysis with R”	May, 2010

Invited presentation with Jer Thorp, BetaDay	December 2010
<u>TimesOpen 2.0: Big Data Wrap-Up</u>	November, 2010
Invited presentation on Cascade with Jer Thorp	
Invited workshop, O'Reilly's Where 2.0	May, 2009
Invited seminar, Wall Street on Demand	May, 2009
Keynote address, AISTATS 2009	November, 2009
<u>Statistics in Society Seminar Series, NYU</u>	February, 2009
Invited talk on "Data analysis in an expanded field"	
<u>11th Annual Japanese-American Kavli Frontiers of Science Symposium</u>	December, 2008
Invited talk	
Invited seminar, Five Colleges Colloquium, Amherst, MA	March, 2008
Invited seminar, Interactive Telecommunications Program, NYU	February, 2008
<u>Computation+Journalism Symposium, Georgia Institute of Technology</u>	February, 2008
Invited talk on non-professional practices of data collection and analysis	
<u>Visualizar Workshop, MediaLab Prado, Madrid</u>	November, 2007
Invited talk	
<u>Yahoo Design Expo, Sunnyvale, CA</u>	August, 2007
Invited presentation on <i>Moveable Type</i>	
<u>Unblinking Conference, UC Berkeley</u>	November, 2006
Presentation with D. Cuff and J. Kang	
<u>National Academy of Sciences, 20th Anniversary Celebration CSTB</u>	October, 2006
Invited talk with D. Cuff and J. Kang	
Commencement address, Department of Statistics, UC Berkeley	May, 2006
<u>Society for Cinema and Media Studies, Vancouver, Canada</u>	March, 2006
Invited presentation	
<u>Mapping New Knowledge Ecologies Workshop, Design Institute, University of Minnesota</u>	February, 2006
Invited talk on embedded sensing	
<u>2005 Joint Statistical Meetings of the ASA, Minneapolis, MI</u>	August, 2005
Invited Talk: <i>Statistical research opportunities in sensor networks</i>	
Organized Invited Session: <i>Mapping</i>	
Organized Invited Session: <i>Statistics and the media arts</i>	
Keynote speaker, SIAM Conference on Data Mining	April, 2005

Invited Seminar with Ben Rubin, The Design Institute, University of Minnesota	April, 2004
<u>German-American Frontiers of Engineering Symposium</u>	April, 2004
Invited talk for a meeting organized by the National Academy of Engineering	
Invited Talk, Argos Festival, Brussels	October, 2003
Invited Seminar, Art Center College of Design, Pasadena, CA	August, 2003
Invited Seminar, Department of Statistics, UC Berkeley	August, 2003
Art, Technology and Culture Colloquium, UC Berkeley	August, 2003
<u>The Beauty of Collaboration Workshop, Banff New Media Institute</u>	May, 2003
Invited participant and speaker	
<u>Workshop on Massive Data Streams</u>	December, 2002
National Academy of Sciences' Committee on Applied and Theoretical Statistics	
Distinguished Invited Speaker Series in Computer Science, UBC	October, 2002
<u>BRIDGES Consortium Two, Banff New Media Institute</u>	October, 2002
Invited participant and speaker	
<u>IMS Meeting on Mixture Models, Cleveland, OH</u>	June, 2002
Invited talk: Mixtures in telecommunications applications	
<u>Spring Research Conference on Statistics in Industry and Technology, Ann Arbor, MI</u>	May, 2002
Invited talk: Data streams	
<u>Free Space Symposium, Duke University</u>	February, 2002
Invited panelist discussing the institutional support required for successful Art & Science Collaborations	
<u>Next Wave 2001, Brooklyn Academy of Music</u>	December, 2001
<i>Listening Post</i> , a two-week installation rendering in real time thousands of simultaneous conversations on the Web	
<u>ArtSci2001, Symposium organized by Art & Science Collaborations</u>	November, 2001
Invited talk on <i>Listening post</i> installation	
Invited Seminar, UC Davis, Department of Statistics	October, 2001
Invited Seminar, Rutgers University, Department of Statistics	October, 2001
Invited Seminar, Columbia University, Department of Statistics	October, 2001
Invited Seminar, Iowa State University, Department of Statistics	October, 2001
Invited Seminar, Carnegie Mellon University, Department of Statistics	September, 2001
<u>2001 Joint Statistical Meetings of the ASA, Baltimore, MD</u>	August, 2001
Organized Invited Session: <i>Multisensory Data Representation and Exploration</i>	

<u>33rd Symposium on the Interface: Computing Science and Statistics, Costa Mesa, CA</u>	June, 2001
Invited Talk: <i>Sound as a tool for data analysis</i>	
<u>Digital H@ppy Hour, The Kitchen, NYC</u>	April, 2001
<i>Sounds of the New</i> , invited presentation with Ben Rubin	
<u>Statistical Methodologies in Business Research Conference</u>	April, 2001
Invited Talk: <i>M-commerce traffic analysis for usability assessment and services creation</i>	
<u>Search Engines: Diversity and Controversy, The Sixth Search Engine Meeting</u>	April, 2001
Invited Talk: <i>The Information Hidden When Web Searching</i>	
<u>Blur: New Creative Practices Within Developing Technologies</u>	January, 2001
Invited seminar series sponsored by Creative Time and Thundergulch, hosted by The New School Presentation Title: <i>Experiencing Information Systems Through Sound</i>	
<u>National Academy of Sciences, Committee on Information Technology and Creativity</u>	November, 2000
Invited Talk: <i>Art-Technology Collaborations</i>	
<u>34th Annual Conference on Information Sciences and Systems, Princeton University</u>	March, 2000
Invited Talk: <i>Uncovering Complexity in Data through Sound</i>	
<u>1999 Joint Statistical Meetings of the ASA, Baltimore, MD</u>	August, 1999
Organized Invited Session: <i>Practical Smoothing</i>	
<u>1999 Joint Statistical Meetings of the ASA, Baltimore, MD</u>	August, 1999
Title: <i>ASA and the Web</i>	
Invited Seminar, New Jersey Institute of Technology	October, 1998
<u>4th ICSA Statistical Conference, Kunming, China</u>	August, 1998
Invited Talk: <i>Statistics in Advanced Manufacturing</i>	
<u>1998 Joint Statistical Meetings of the ASA, Dallas, Texas</u>	August, 1998
Invited Talk: <i>Extended Linear Modeling and the Principle of Minimum Description Length</i>	
Invited Seminar, University of Michigan, Department of Statistics	April, 1998
Invited Seminars, Cornell University, Department of ORIE and Statistics Department	March, 1998
<u>Fall Technical Conference, Baltimore, Maryland</u>	October, 1997
Invited Talk: <i>Monitoring Wafer Map Data from IC Fabrication Processes for Spatially Clustered Defects</i> <i>Technometrics</i> Invited Session	
<u>1997 Joint Statistical Meetings of the ASA, Anaheim, California</u>	August, 1997
Title: <i>Adaptive Knot Splines</i>	

<u>1997 Joint Statistical Meetings of the ASA, Anaheim, California</u>	August, 1997
Organized Invited Session: <i>Computational Science and the Internet</i>	
<u>Joint Research Conference on Statistics in Industry and Technology, New Brunswick, NJ</u>	June, 1997
Organized Invited Session: <i>Semiconductor Yield Modeling</i>	
Invited Seminar, The Wharton School, University of Pennsylvania	April, 1997
<u>21. Jahrestagugg der Gesellschaft für Klassifikation e.V., Potsdam, Germany</u>	March, 1997
Invited Talk: <i>Spline Adaptation in Extended Linear Models</i>	
Invited Seminar, Weierstrass Institute for Applied Analysis and Stochastics	March, 1997
Invited Seminar, University of California at Berkeley Department of Statistics	November, 1996
Invited Seminar, Rutgers University Department of Statistics	September, 1996
<u>1996 Joint Statistical Meetings of the ASA, Chicago, Illinois</u>	August, 1996
Title: <i>Data Analysis and the Web</i>	
Invited Seminar, University of Illinois at Urbana-Champaign Department of Statistics	April, 1996
Invited Seminar, University of Washington Department of Statistics	February, 1996
<u>IMS WNAR, Stanford, California</u>	June, 1995
Invited Talk: <i>Bivariate function estimation via spline spaces defined over adaptively constructed triangulations</i>	
<u>27th Symposium on the Interface: Computing Science and Statistics, Philadelphia, PA</u>	June, 1995
Invited Talk: <i>Process and Productivity Improvement in Semiconductor Manufacturing</i>	
<u>Quality and Productivity Research Conference, Phoenix, Arizona</u>	May, 1995
Invited Talk: <i>Strategies for Process and Productivity Improvement in IC Manufacturing</i>	
<u>Spring Research Conference on Statistics in Industry and Technology, Chapel Hill, NC</u>	June, 1994
Invited Talk: <i>Quality and Productivity Improvement in Integrated Circuit Fabrication</i>	
<u>1993 Joint Statistical Meetings of the ASA, San Francisco, California</u>	August, 1993
Invited Talk: <i>Quality Improvement in Integrated Circuit Fabrication Through Spatial Analysis of Wafer Map Data</i>	
<u>ORSA/TIMS Meeting, San Francisco, California</u>	November, 1992
Invited Talk: <i>Process Improvement through Statistical Modeling and Data Analysis: An Application to IC Fabrication</i>	