October 23, 2015

CURRICULUM VITAE

David Warren Scott
Noah Harding Professor of Statistics
Department of Statistics, MS-138
Rice University
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EDUCATION

B.A.   1972   Electrical Engineering and Mathematics, Rice University
M.A.   1976   Mathematical Sciences, Rice University
Ph.D  1976   Mathematical Sciences, Rice University

PROFESSIONAL EXPERIENCE

| | |
|---|---|
| 2015 | Visiting Mathematician (January-May,June-August), IDA-CCR-L, La Jolla, CA |
| 2014 | Visiting Mathematician (August-December), LAS, Raleigh, NC |
| 2013-14 | Chair, Department of Statistics, Rice University |
| 2013 | Visiting Mathematician (June-August), IDA-CCR-L, La Jolla, CA |
| 2009-13 | Associate Chairman, Department of Statistics, Rice University |
| 2011-13 | Visiting Mathematician (June-August), IDA-CCR, Princeton, NJ |
| 2011 | Visiting Mathematician (June-July), IDA-CCR-L, La Jolla, CA |
| 2010 | Visiting Mathematician (June-August), IDA-CCR, Princeton, NJ |
| 2009 | Visiting Mathematician (June-July), IDA-CCS, Bowie, MD |
| 2008 | Visiting Mathematician (June), IDA-CCS, Bowie, MD |
| 2006-07 | Visiting Mathematician, National Security Agency |
| 2001- | Faculty, Graduate Program in Structural and Computational Biology and Molecular Biophysics, Baylor College of Medicine |
| 2001- | Statistical Consultant, Los Alamos National Labs |
| 2001- | Expert Mathematician, National Security Agency |
| 1999-00 | Visiting Mathematician, National Security Agency |
| 1999 | Visiting Mathematician, IDA-CCR, Princeton, NJ |
| 1998 | Visiting Fellow of the Institute of Applied and Pure Mathematics, Louvain-la-Neuve |
| 1993-94 | Visiting Mathematician, National Security Agency |
| 1990-93 | Chairman, Department of Statistics, Rice University |
| 1987- | Professor of Statistics, Rice University |
| 1987 | Visiting Professor, Wirtschaftstheorie II, Universitat Bonn |

| | |
|---|---|
| 1985- | Professor of Mathematical Sciences, Rice University |
| 1985-86 | Visiting Professor, Department of Statistics, Stanford University |
| 1980-85 | Associate Professor of Mathematical Sciences, Rice University |
| 1979-80 | Assistant Professor of Mathematical Sciences, Rice University |
| 1979- | Adjunct Assistant (Associate 1981) Professor of Experimental Medicine and of Community Medicine, Baylor College of Medicine |
| 1976-79 | Assistant Professor of Mathematics, Department of Community Medicine, Baylor College of Medicine |
| 1976-79 | Adjunct Assistant Professor of Mathematical Sciences, Rice University |
| 1976 | Research Associate and Instructor, Department of Mathematical Sciences, Rice University |

## HONORARY AND PROFESSIONAL SOCIETIES

Elected Member, ISI/IASC Executive Committee, 2015-2017.
Member, Committee on Fellows and Awards, ASA Section on Statistics
in Defense and National Security, 2014-2016.
Presidential Mentoring Award, Rice University, April 25, 2012
Founders Award, American Statistical Association, August 5, 2008, Denver
Elected Chairman of the Board, Interface Foundation, 2009-2014
Winner, U.S. Army Wilks Award, 50th Army Conference on Applied Statistics, October 20, 2004, Atlanta
Elected, Council Member, Institute of Mathematical Statistics, 8/1/02-8/8/05
Elected Chairman of the Board, Interface Foundation, May, 2004
Elected Member, Board of Directors, Interface of Computing Science and Statistics Foundation, 2004-2008, 2009-2013
Elected, Council Member, International Assoc of Statistical Computing IASC 1999-2003
Elected, Ordinary Member, International Statistical Institute, January, 1995
Texas Statistician of the Year (ASA Don Owens Award), San Antonio, April, 1993
Fellow, American Statistical Association, August 1990
Fellow, Institute of Mathematical Statistics, August 1990
Fellow, American Association for the Advancement of Science, March 1987
Who's Who in American Education 1992-1993
Who's Who in America 1993-2006
American Statistical Association  1977-
Institute of Mathematical Statistics  1976-
American Association for the Advancement of Science  1981-
Royal Statistical Society  1987-
National Computer Graphics Association  1984-1993
American Mathematical Association  1984-
Society for Industrial and Applied Mathematics  1985-87,88-2006
The American Mathematical Society 1985-
Classification Society of North America 1991-
Interface Foundation of North America 2001-
The Biometrics Society  1982-86
Rice Fellow for seven semesters  1972-75;  Sigma Tau  1972

## GRANTS

Principal Investigator, "Cyber-Spectrum Research and Technology Development Virtual Environment," with Applications," Clarkson Aerospace Corporation, October 1, 2015 - September

27, 2016, $76,575 (with Jim Thompson).

Principal Investigator, ''Training ROTC Students in Data Mining with Applications,'' Clarkson Aerospace Corporation, May 18, 2015 - August 18, 2015, $17,461 (with Jim Thompson).

Principal Investigator, ''Exploring the Optimal Forecasting Frontier: How Much Room is There to Improve Subjective Forecasting Accuracy?,'' IARPA, June 03, 2011 - June 02, 2015, $454,273, subcontract UC Berkeley, Phil Tetlock and Barbara Mellers, PI's.

Principal Investigator, ''Multivariate Nonparametric Methodology Studies,'' National Science Foundation, August, 2009 - July, 2014, $100,000, DMS-09-110603 (with Dennis Cox).

Co-Principal Investigator, ''Collaborative Research: Online Statistics Education: An Interactive Multimedia Course of Study II,'' National Science Foundation, August 15, 2009 - August 31, 2011, $204,716, (David Lane, P.I., Paul Giguere (Tufts), Camille Peres (UHCL)).

Principal Investigator, ''Department of Energy Computational Science Graduate Fellowship: Eric Chi,'' Krell Institute, September 1, 2008 - August 31, 2011.

Principal Investigator, ''Novel Statistical Approaches to Information Detection, Fusion, and Representation,'' Office of Naval Research, October, 2005 - September, 2010, $300,000, N00014-06-1-0060.

Principal Investigator, ''Multivariate Nonparametric Methodology Studies,'' National Science Foundation, August, 2005 - July, 2009, $280,000, DMS-05-05584 (with Dennis Cox).

Principal Investigator, ''Space Shuttle Data Visualization,'' United Space Alliance, June, 2004 - December, 2004, $9,803.

Principal Investigator, ''Algorithms for Real-Time Outlier Detection,'' United Space Alliance, June, 2003 - May, 2004, $22,024.

Principal Investigator, ''Multivariate Nonparametric Methodology Studies,'' National Science Foundation, June, 2002 - July, 2005, $265,148, DMS-02-04723 (with Dennis Cox).

Principal Investigator, ''Digital Government: Collaborative Research: Quality Graphics,'' National Science Foundation, August, 2000 - July, 2004, $270,000, DMS-99-83459.

Co-Principal Investigator, ''The Rice Virtual Lab in Statistics,'' National Science Foundation, July 1, 1997 - June 30, 2000, $200,000, (David Lane, P.I., Quinones, Austin, Baggerly, co-PI's); renewed 2001-2004, $400,000.

Principal Investigator, ''Multivariate Nonparametric Methodology Studies,'' National Science Foundation, June, 1999 - May, 2002, $255,000, DMS-99-71797 (with Dennis Cox).

Principal Investigator, ''Workshop on Advances in Smoothing: Bumps, Jumps, Clustering, and Discrimination,'' National Science Foundation, March 1, 1997 - February 28, 1998, $9,241, DMS-96-15912.

Principal Investigator, ''Multivariate Nonparametric Methodology Studies,'' National Science Foundation, June, 1996 - May, 1999, $219,081, DMS-96-26187 (with Dennis Cox).

Principal Investigator, ''Research and Training in Computational Statistics and Mathematical

Sciences," National Security Agency, October 1, 1995 - September 30, 1998, $600,000, MDA 904-95-C-2203.

Principal Investigator, "Spatial Estimation and Presentation of Regression Surfaces Using Complex Survey Data," U.S. Dept. Agriculture, September 29, 1995 - September 30, 1996, $12,000, USDA 43-3AEL-5-80119.

Principal Investigator, "Multivariate Nonparametric Methodology Studies," National Science Foundation, May, 1993 - May, 1996, $130,500, DMS-9306658.

Principal Investigator, "Senior Investigator Graduate Student Fellowship Funds", National Security Agency, 1993 - 1995, $12,000, MOD-9086-93.

Research Associate, EPA, Phil Bedient, P.I.

Principal Investigator, "Mathematical Sciences Research Equipment," NSF, 1993, $40,806, DMS-9305700.

Principal Investigator, "Construction of a Reactive Computing Environment for Density Estimation in Three to Five Dimensions," vOffice of Naval Research, January, 1985 - December, 1987, $224,406; renewed, January, 1988 - December 1989, $116,799; renewed, January, 1990 - June, 1993, $250,975.

Co-Principal Investigator, "Houston Ozone Study," Texas Air Control Board, UT Subcontract IAC VID 37217217217000, (with K. Ensor), 1991, $15,000.

Principal Investigator, "Computer Workstations for Color Graphics Laboratory: Sun-3 from Sun Microsystems, Inc." Office of Naval Research (DOD-URIP), Grant, August, 1986 - December, 1987, $73,332 (includes $15K matching funds).

Principal Investigator, "Nonparametric and Mixture Methods for Crop Classification and Estimation in a Reactive Computer Environment," NASA/Johnson Space Center, July, 1983 - May, 1984, $24,990, NCC9-10; "Nonparametric and Mixture Methods for Representation and Classification of Remotely Sensed Data," May, 1984 - April, 1985, $25,000.

Principal Investigator, "Mathematical Sciences Research Equipment," NSF, 1983, $19,800, MCS83-05525, R.A. Tapia, co-P.I.

Principal Investigator, "Interactive Nonparametric and Mixture Methods for Crop Classification and Estimation," NASA/Lockheed, 1982-1983, $33,601, PO-0200100079.

Research Associate, "Efficient Methods for Multidimensional Probability Density Estimation," ARO, 1982-1985, $164,985, J.R. Thompson, P.I., DAAG-29-82-K-0014, renewed 1985-1988, renewed 1988-1991 ($150,000).

CONSULTING EXPERIENCE

1999-2008   Faculty-in-Residence, Sabre Decision Technologies

1973-   Scientific Programming Consultant with International Mathematical and Statistical Libraries (IMSL), Houston, TX; Software Copyright Infringement Legal Consultant; Biostatistical consulting; Industrial consulting including Fulbright and Jaworski, Browning-Ferris, Dresser Industries, McGovern Clinic, and Exxon Corporation.

PROFESSIONAL ACTIVITIES

External reviewer, Applied Math and Statistics, Johns Hopkins University, February 18-19, 2013.

Co-Organizer and Co-Program Chair, Interface of Computing Science and Statistics, May 16-18, 2012, Houston, Texas, with Hadley Wickham and Jeffrey Morris.

Executive editor, Computational Statistics, Wiley WIRES, 2012-.

Co-editor, Computational Statistics, Wiley WIRES, 2009-2012.

Chair, Workgroup on Publications, American Statistical Association, 2009.

Chair, Committee on Publications, American Statistical Association, 2009-2011.

Chair, LANL LDRD-DR Review Panel for Streaming Data Project, May 5, 2009;

Member, NIST ITL-NRC Assessment Panel, Gaithersburg, April 1-3, 2009; March 6-8, 2007.

Moderator, DOE ASCR Workshop on Mathematics for Analysis of Petascale Data, Rockville, MD, June 3-5, 2008.

AAAS Electorate Nominating Committee for Statistics, 2007-

Member, Advisory Board, Statistical Analysis and Data Mining Journal, 2007-2009.

Member, NSF MSPA-MCS Panel, May 15-16, 2006.

Member, U.S. National Committee on Data for Science and Technology (CODATA), Policy and Global Affairs Division, The National Academies, 12/1/2005-6/30/2008.

Member, Advisory Board, Rice University School Mathematics Project (RUSMP), 2005-.

Editorial Board, Statistics Surveys, IMS on-line journal, 2005-.

IMS Council Committee to Select Administrative Officers (D. Scott, chair), 7/2003-8/2006.

IMS Ad Hoc Investment Committee (D. Scott, chair, 2005); Member 2006.

Associate Editor, Journal of Computational and Graphical Statistics, 2005-.

Member, Committee on Applied and Theoretical Statistics, Board on Mathematical Sciences, The National Academies, 9/1/2000-6/30/2003; 1/1/2004-6/30/2005.

Member, NSF DMS Graduate Fellowship Panel, February 11-12, 2005.

Organizer, "Analysis of Very Large Datasets," Interface 2004, Baltimore, May 26-29, 2004. Speakers: Allan Wilks, Antony Unwin, and David Scott.

Organizer, "Semiparametric and Nonparametric Testing," Second Lehmann Symposium, Houston, TX, May 19-22, 2004. Speakers: Jeff Hart, Joe Gastwirth, and Irene Gijbels.

Member, ASA Noether Award Committee, 2000-2001, 2002-2004

Member, Editorial Board, Probability and Statistics Series, John Wiley & Sons, 1994-.

Member, ASA-SIAM book series task force, 2003-2004 (Jane Gentleman, chair).

Member, IASC Publications Committee, 2003-.

Member, NSF DMS Proposal Screening Panel, Arlington, VA, December 16-18, 2002; December 15-17, 2003.

Chair, Organizing Committee, and Leader, "Statistical Analysis of Massive Data Streams," The National Academies, Committee on Applied and Theoretical Statistics, Washington, DC, December 13-14, 2002.

Elected, IMS Council, Institute of Mathematical Statistics, 7/2002-7/2005.

Member, Program Committee, "Workshop on Developments and Challenges in Mixture Models, Bump Hunting and Measurement Error Models," National Science Foundation,

Case Western Reserve University, June 2-4, 2002.

Member, National Science Foundation Vision 2020 Workshop, "Statistics: Challenges and Opportunities for the Twenty-First Century." Arlington, VA, May 6-8, 2002 (written report).

Organizer/Discussant, "Clustering and Mixture Modeling Applications," ENAR/IMS, Arlington, VA, March 18, 2002. Speakers: Bruce Lindsay, Carey Priebe, and Guenther Walther.

Appraisal Consultant for the Ontario Council on Graduate Students, Department of Statistics, University of Western Ontario, Canada, 1/22-23/2002.

Co-Program Chair (with Roger Berger), 2001 SRCOS/ASA Summer Research Conference in Statistics, St. Augustine, FL, June 3-6, 2001.

Editor, Journal of Computational and Graphical Statistics, 2000-2004.

Member, Special ASA Electronic Publications Task Force, 2001-2002 (with Jim Landwehr, Karen Kafadar, Todd Ogden, Jim Rosenberger).

Co-chair, ASA Committee on Electronic Communications, 2001 (with Paul Velleman)

Program Chair, Nonparametrics Section, Joint Statistical Meetings, August 6-10, 2000, Indianapolis, IN.

Overall Program Chair, Joint Statistical Meetings, August 9-13, 1998, Dallas, Texas.

President, Board of Directors, Interface of Computing Science and Statistics Foundation, 1998-2001.

Member, ASA Committee on Meetings, 1/97--12/99.

Council of Section Representative, ASA Section on Computer Graphics, 1/99-12/01.

Organizer and Program Chair, Interface of Computing Science and Statistics, May 14-17, 1997, Houston, Texas.

Organizer and Program Chair, NSF Workshop on Advances in Smoothing, May 11-14, 1997, Houston, Texas.

Member, NSF DMS Proposal Screening Panel, Arlington, VA, December 16-18, 1996.

Member, Editorial Board, Statistical Sciences, 1995-97.

Member, ASA Committee on Electronic Communications, 1996-1998, 1999-2001.

NSF Workshop on Statistics and Signal Processing, Monterey, CA, Nov 1-3, 1995.

Member, NSF DMS Proposal Screening Panel, Arlington, VA, December 5-7, 1994.

President (Elect-Past), Section of Statistical Graphics, ASA, 1993-96; Members, Section Fellows Nominating Committee, 1999-2001.

Distinguished Foreign Lecturer, South Africa Statistical Association Annual Meeting, University of Pietermaritzburg, November 3-5, 1993.

Board of Directors, Interface of Computing Science and Statistics Foundation, elected member and secretary, 1992-1996; re-elected, 1997-2001.

Co-Editor (with Wolfgang Haerdle), Journal of Computational Statistics, Physica-Verlag, 1991-1998.

Program Chair, Section of Statistical Graphics, ASA, 1991-93.

Management Committee, Journal on Computational and Graphical Statistics, 1990-1992.

Associate Editor of The Annals of Statistics, 1989-1991.

Associate Editor of JASA, Applications Section, 1983-85, 1986-88, 1989-91, 1992-94.

Program Chair, Statistics Track, NCGA, April 22-25,1991, Chicago; March 9-12, 1992, Anaheim.

Member ASA Committee to Select JASA Theory and Methods Editor, 1989.

President, Houston Area Chapter ASA 1988-89; Vice-President 1987-88.

Member Advisory Committee on Continuing Education, ASA, 1988-1990.

NCI-NIH Special Review Panel, March 13-14, 1990, Bethesda, MD; NSF SCREMS Review Panel for Special Equipment in Mathematical Sciences, March 8-10, 1989 and March 3-5, 1988; NSF Presidential Young Investigator Mathematical Sciences Selection Panel, Washington, DC, October 9-10, 1986.

Organizer invited paper sessions, Annual Meeting of the ASA, San Francisco, CA, August

9-12, 1993. "Young Researchers in Statistical Graphics;" Speakers: James Hardin, Michael Minnotte, John Elder, Qiang Luo. "Novel Multivariate Applications of Statistical Graphics;" Speakers: James Schimert, Georgia Thompson, Chisheng Huang.

Organizer invited paper session, "Current and Future Computing Environments," SRCOS Summer Research Conference, Galveston, TX, June 7, 1993. Speakers: Terry Therneau and Michael Pearlman.

Organizer invited paper session, "Applications of Statistical Graphics and Nonparametric Regression," ASA Annual Meeting, Boston, MA, August 12, 1992. Speakers: Doug McManus, Michael Tarter, Katherine Ensor.

Organizer invited paper session, "Visualizing Multivariate Data and Functions," Interface of Computing Science and Statistics, College Station, TX, March 19, 1992. Speakers: Qiang Luo, Georgia Thompson, Scott, and Ted Milhalisin.

Chairman and Organizer, Statistical Graphics Technical Sessions, National Computer Graphics Association, Anaheim, CA, March 9-12, 1992. Speakers: Kuhfeld, Wilkinson, Polhemus, Scott.

Organizer and Co-Chairman, Conference of Texas Statisticians, COTS, Houston Hilton, March 23-24, 1990.

Grant from Rice Center for the Study of Institutions and Values for visit of Wolfgang Haerdle April 5-25, 1988 from the University of Bonn: MIT, Texas Conference of Statisticians invited talk, Texas A&M, Rice University (series of 4 talks), Chapel Hill, Interface of Computer Science and Statistics.

Session Organizer: "Future of Statistical Computing," Statistical Computing Section Program special invited paper section for ASA150 Sesquicentennial Annual Meeting, August, 1989 (Wegman, Becker/Chambers, Thompson, Breiman); Organizer of invited paper session entitled "Detecting Nonlinear Structure in Several Dimensions" for 1989 ASA150 meetings, August, 1989 (Flury, Inselberg, and Carr); Organizer of invited paper session entitled "Density Estimation and Smoothing" for the 20th Interface of Computer Science and Statistics meeting in Washington, D.C., April 21-23, 1988: Speakers W. Haerdle, M. Tarter, D. Scott; "New Methods and Applications in Dimension Reduction," ENAR-ASA, Boston, March 28-30, 1988 (Nychka, Terrell, and Salsburg; Boswell, chair); "Applications of Recent Methodology in Statistical Graphics for Nonspecialist," Statistical Graphics Section Program, ASA Annual Meeting, San Francisco, CA, August 17-20, 1987 (Wendelberger, Cooper, Greenacre, Wegman); "New Methods in Statistical Graphics," ASA Statistical Graphics Section, ENAR-IMS meeting, Dallas, TX, March 22-25, 1987 (Gabriel, Brown, Gasko).

Chairman and Organizer, Statistical Graphics Technical Sessions, National Computer Graphics Association, Chicago, IL, April 22-25, 1990. Speakers: Wegman, Carr, Tierney, and Rodriguez.

Co-Chairman, Statistical Graphics Technical Sessions, National Computer Graphics Association, Anaheim, CA, May 12-15, 1986.

Representative of the American Statistical Society to the AFIPS Education Committee, 1982-1984.

Referee for Annals of Statistics, JASA, Math Reviews, Communications in Statistics, Statistics & Probability Letters, Journal of Official Statistics, Cancer Research, and Artery

Reviewer for Mathematical Sciences Section of NSF, ARO, ONR, AFOSR, and the English Science & Engineering Research Council.

Member of NIH National Cancer Institute site visit team to the University of California at Berkeley and the West Coast Cancer Foundation, October 19-20, 1980

SREB Committee on Statistics representative


## UNIVERSITY ACTIVITIES

Chair, Statistics Graduate Admissions Committee, 2015-2016.
Faculty Senate, Elected Member, Rice University, 2011-2014
Recording Secretary, Houston Philosophical Committee, 2011-2014
Member, Faculty Senate Ad Hoc Committee on Retirement, Fall, 2011
Faculty Advisor, Graduate Student Association, 2009-2013
co-Chair, Fringe Benefits Committee, 2008-2013
Member, Engineering Information Technology Working Group, 2006-
Chair, Statistics Graduate Committee, 1987-1990, 1994-1999, 2003-2006
Member, Fringe Benefits Committee, 2004-2006
Member, Faculty Governance Committee, 2004
Appointed member, Faculty and University Councils, Fall, 2004
Member, University Committee On Export Controls Meeting, 2003-2006
Chair, Statistics Computer Committee, 2000-
Faculty Associate, Baker College, 1998-2010
Member, CITI Steering Committee, 1995-2006
Member, University Parking Committee, 2000-2002
Engineering Representative, Information Technology Computer Committee, 1998-2006
Member, Research Council, 1998-1999
Member, Provost's Ad Hoc Faculty Advisory Committee on Retirement, 1998
Chair, Fringe Benefits Committee, 1995-97, Member 1997-1998
Member, Graduate Council, 1995-98
President, Rice Faculty Club Board of Directors, 1991-93
Member, Rice Faculty Club Board of Directors, 1989-96
Member, University Fringe Benefits Committee, 1991-93
Chairman, University Committee of Computers, 1989-91
Acting Chairman, Department of Statistics, Summer 1988
Member, University Graduate Council, 1984-85, 88-91
Member, Search Committee for Dean of Social Sciences, 1987-88
Member, Administrative Subcommittee, Computer Planning Board, 1987-90
Member, University Committee on Computers, 1987-2000
Member, Mathematical Sciences Search and Planning Committee, 1986-87
Member, Mathematical Sciences Undergraduate Curriculum Committee, 1986-87
Chairman, Mathematical Sciences Graduate Committee, 1979-85
Elected Member, University Faculty Council, 1981-85
Elected Member, University Tenure and Ethics Committee, 1981-85
Faculty Associate, Lovett College, 1981-86
Member, Mathematical Sciences Goals and Search Committee, 1983-85
Member, University Marshalls Committee, 1983-85,86-89
Member, University Library Committee, 1984-85
Member, School of Engineering Computer Planning Committee, 1984-85,86-87
Member, University Admissions Committee, 1980-1983
Member, University Undergraduate Curriculum Committee, 1979-1982

## STUDENTS DIRECTED

Lynette E. Factor (Lamstein), M.A. degree received May, 1979, "A Comparison of Three Data-Based Nonparametric Probability Density Estimators."

Donna Nezames, Ph.D. degree received May, 1980, "Some Results for Estimating Bivariate Densities Using Kernel, Orthogonal Series, and Penalized-Likelihood Procedures." Currently at Exxon Production Research.

DeBow Freed II, Ph.D. degree received May 1983, Department of Mechanical Engineering, co-director, ''Effects of Cavitation on Normal Human Platelets.'' Currently a consultant in Dallas.

Anna E. Baron, Ph.D. degree received July 1984, University of Texas School of Public Health, co-director, ''Distributional Properties Affecting Classification in Multiple Group Discrimination Analysis.'' Currently faculty member at University of Colorado Medical School.

Rodney Jee, Ph.D. degree received May, 1985, ''A Study of Projection Pursuit Methods.'' (G.R. Terrell co-director). With JPL until 1994; with HNC Insurance Solutions, a private consulting firm.

Roland Sanchez, Ph.D. degree received May, 1990, ''A Nonparametric Regression Algorithm for Time Series Forecasting with Application to the Predict Analysis of Urban Ozone Daily Maximum Levels.'' (J.R. Thompson co-director).

Ferdie T. Wang, Ph.D. degree received May, 1990, ''A New Method for Robust Nonparametric Regression.'' Currently with Freddie Mac Corporation, Washington, D.C.

Michael C. Minnotte, Ph.D. degree requirements satisfied June, 1992, ''Bump-Hunting and Multimodality Testing with the Modal Tree.'' Currently Associate Professor, North Dakota State University.

Stephan R. Sain, Ph.D. degree received May, 1994, ''Adaptive Kernel Density Estimation.'' Currently GSP Project Leader, National Center for Atmospheric Research.

Keith A. Baggerly, Ph.D. July, 1994, ''Visual Estimation of Structure in Ranked Data.'' Co-directed with Georgia L. Thompson, SMU. Currently Professor of Bioinformatics, M.D. Anderson Cancer Institute.

John Salch, Ph.D. November, 1997, ''Practical Methods for Data Mining with Massive Data Sets.'' Currently with Pros Strategic Solutions, Houston.

William C. Wojciechowski, Ph.D. May, 2001, ''Robust Modeling.'' Currently with Vaughan Nelson Investment Management, Houston, Texas.

Nancy Glenn, Ph.D. May, 2002, ''Robust Empirical Likelihood.'' Co-directed with Yin Zhang. Currently Associate Professor, Texas Southern University.

Hsi-Guang Sung, Ph.D., April, 2004, ''Gaussian Mixture Regression and Classification.'' Currently with Microsoft. Previously with Google and the Division of Space Life Sciences, Universities Space Research Association (USRA), Houston.

Alena Ixmocane Scott, Ph.D., May, 2006, ''Denoising by Wavelet Thresholding Using Multivariate Minimum Distance Partial Density Estimation.'' Currently with Horizon Wind Energy, Houston.

Galen Papkov, Ph.D. December, 2008, ''Locally-Adaptive Polynomial-Smoothed Histograms With Application to Massive and Pre-Binned Data Sets.'' Currently Assistant Professor, Florida Gulf Coast University, Fort Myers, FL.

Eric C. Chi, Ph.D. August, 2011, ''Parametric Classification and Variable Selection

by the Minimum Integrated Squared Error Criterion." Currently a Post-Doc at UCLA.

Jonathan Lane, Ph.D. December, 2011, "Robust Quantile Regression." Currently at Sandia Labs, Albuquerque, NM.

Justin Silver, Ph.D. April, 2013, "Robust Parametric Functional Component Estimation Using a Divergence Family." Currently at PROS, Inc, Houston.

Jingjing Yang, Ph.D., March, 2014. "Smoothing Functional Data with a Bayesian Hierarchical Model and Robust Fitting of a Weibull Model with Optional Censoring," Department of Statistics. Co-Directors Dennis D. Cox and David W. Scott.

Jaime Ramos, Ph.D., May, 2014. "Robust Methods for Forecast Aggregation," Department of Statistics. Director David W. Scott.

OTHER STUDENT COMMITTEES

David A. Andrews, Ph.D., July, 1998, "Spatial-Temporal Modeling of Vector-Valued Data Using Gradient Processes: An Application to Wind Fields." Department of Statistics. Director Dennis Cox.

Anthony K. Postert, Ph.D., April, 1999, "Essays on Domestic and International Airline Economics With Some Bootstrap Applications," Department of Economics. Director Robin Sickles.

Matthew S. Crouse, Ph.D., April, 1999, "Transform-Domain Modeling of NonGaussian and 1/f Processes," Department of Electrical and Computer Engineering. Director Rich Baraniuk.

Floyd Walker, M.A., April, 1999. Department of Electrical and Computer Engineering. Director Don Johnson.

Justin Romberg, M.A., April, 1999. "A Universal Hidden Markov Tree Image Model." Department of Electrical and Computer Engineering. Director Don Johnson.

Weiyu Gao, Ph.D. May, 1999, "Essays on Parametric and Nonparametric Modeling and Estimation with Applications to Energy Economics," Department of Economics. Director Robin Sickles.

Lullit Getachew, Ph.D. June, 2002. "Parametric and Nonparametric Measures of Productive Performance: The Case of Private Manufacturing in Egypt." Department of Economics. Director Robin Sickles.

Angela M. Bellavance, Ph.D., November, 2002. "Search for the Lepton-flavor-number Violating Decay in the full E799II KTeV Data Set," Department of Physics. Director Marjorie Corcoran.

Richard Swartz, Ph.D., November, 2002. "The Identification Process: Bayesian Sequential Classification." Department of Statistics. Director Dennis Cox.

Brent Buckalew, Ph.D., April, 2003. "Comparison of Clusters with and without Detectable Wolf-Rayet Stars in Starburst Galaxies using Optical, Near-infrared Imagery

and Spectroscopy." Department of Physics. Director Reggie DuFour.

Takao Doi, Ph.D., March 2004. "Internal Velocities in the Orion Nebula." Department of Physics and Astronomy. Director Patrick Hartigan.

Constance Leidy, Ph.D., April 2004. "High-Order Linking Forms." Department of Mathematics. Director Tim Cochran.

Clayton Scott, Ph.D., August 2004. "Dyadic Decision Trees." Department of Electrical and Computer Engineering. Director Robert Nowak.

Andrew W. Askew, Ph.D., November 2004. "Measurement of the W-gamma to mu-nu-gamma Cross Section." Department of Physics. Director Paul Padley.

Jong Soo Lee, Ph.D., December 2005. "Aspects of Functional Data Inference and Its Applications," Department of Statistics. Director Dennis Cox.

Michael S. Merrit, Ph.D., April 2006. "A Sensitivity-Driven Greedy Approach to Fluence Map Optimization in Intensity-Modulated Radiation Therapy," Department of Computational and Applied Mathematics. Director Yin Zhang.

Jose-Miguel Yamal, Ph.D., May 2007. "Multilevel Classification: Classification of Populations from Measurements on Members," Department of Statistics. Director Dennis Cox.

Michael P. Cooke, Ph.D., May 2008. "WW Production Cross Section Measurement and Limits on Anomalous Trilinear Gauge Couplings," Department of Physics. Director Marjorie Corcoran.

Viacheslav Fofanov, Ph.D., May 2008. "Statistical Models in Protein Structural Alignments," Department of Statistics. Director Marek Kimmel.

Clint P. Aichele, Ph.D., May 2009. "Characterizing Water-in-Oil Emulsions with Application to Methane Hydrate Formation," Department of Chemical and Biomolecular Engineering. Director Walter G. Chapman.

Levent Kutlu, Ph.D., May 2010. "Market Power and Efficiency," Department of Economics. Director Robin Sickles.

Dennis Mackin, Ph.D., June 2010. "A Search for the Lightest Supersymmetric Partner of the Top Quark at D0," Department of Physics. Director Marjorie Corcoran.

Mathias Ricken, Ph.D., January 2011. "A Framework for Testing Concurrent Programs," Department of Computer Science. Director Corky Cartwright.

Paul Mattione, Ph.D., March 2011. "Photoproduction on the Deuteron," Department of Physics. Directors Paul Padley and Marjorie Corcoran.

Jiaqi Hao, Ph.D., August 2011. "Essays on Productivity Analysis," Department of Economics. Director Robin Sickles.

Bridget Franklin, Ph.D., March, 2012. "Obstructions to the Concordance of Satellite Knots," Department of Mathematics. Director Tim Cochran.

Jerome Alexander Dugan, Ph.D., April, 2012. "Essays on Healthcare Access, Use, and Cost Containment," Department of Economics. Director Vivian Ho.

Pavlo Demchuk, Ph.D., August 2012. "Essays in Efficiency Analysis," Department of Economics. Director Robin Sickles.

Garrett Grolemund, Ph.D., August 2012, "Tools and Theory to Improve Data Analysis," Department of Statistics, Director Hadley Wickham.

Michelle Prewitt, Ph.D., April 2013. "Search for the Rare Decay B0(s) to mu+mu- at D0," Department of Physics. Director Marjorie Corcoran.

Fei Jiang, Ph.D., October, 2013. "Bayesian Decision-Theoretic Method and Semiparametric Approach with Applications in Clinical Trial Designs and Longitudinal Studies," Department of Statistics, Director J. Jack Lee, MDA.

Yanxun Xu, Ph.D., December, 2013. "Application of Bayesian Modeling to High-throughput Geonomeic Data and Clinical Trial Design," Department of Statistics, Director Dennis D. Cox.

Junrong Liu, Ph.D., March, 2014, "Essays on Productivity and Panel Data Econometrics," Department of Economics. Director Robin C. Sickles.

Kim, Soyeon, Ph.D., April, 2015, "Prediction Oriented Market Selection (PROMISE) for High Dimensional Regression with Applications to Personalized Medicine," Department of Statistics. Director J. Jack Lee, MDA.

Luna, Pamela, M.A., December, 2015, Director, Chad Shaw, BCM.

## DOCTORAL DISSERTATION

"Nonparametric Probability Density Estimation by Optimization Theoretic Techniques," Rice University, May, 1976.

Directors: James R. Thompson and Richard A. Tapia

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121. Shah, S.R., Tatara, A.M., Lam, J., Lu, S., Scott, D.W., Bennett, G.N., van den Beucken, J.J.J.P.,, Jansen, J.A., Wong, M.E., and Mikos, A.G. (2015), "Polymer-Based Local Antibiotic Delivery for Prevention of Polymicrobial Odotogenic Infection in Contaminated Manidibular Implants," Submitted.

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121. Lane, J.W. and Scott, D.W. (2014), "Robust Linear Quantile Regression," Submitted, CS-DA.

121. Scott, D.W. (2014), "Improving on the Interquartile Range for Robust Scale Estimation," Submitted.

122. Scott, D.W., Zabell, S., and Anonymous, (2014), "Old wine in new bottles: Netflow and the sampling of species problem,â IDA Working paper, La Jolla, CA.

122. Scott, D.W. and Baggerly, K.A. "Comment on Paper by Jones, et al." JRSS-B, September, 1994.

123. Scott, D.W. "Constrained Oversmoothing in Regression and Density Estimation." Technical Report 92-8, 1992.

124. Scott, D.W. (1997) "Averaged Shifted Histogram," In *Encyclopedia of Statistical Sciences--Update*, John Wiley, New York, pp. 39-42.

125. Whittaker, G., Srinivasan, R., Fare, R., and Scott, D.W. (1997). "Basin Scale Analysis of Agricultural Nonpoint Pollution Policy," Submitted to *Land Economics*.

126. Sagae, M. and Scott, D.W. (1997). "Bin Interval Method of Locally Adaptive Nonparametric Density Estimations," Submitted to *AOS*, December.

127. Scott, D.W. (1998). "Parametric Modeling by Minimum L2 Error." Technical Report 98-3, Dept of Statistics, Rice University, Houston.

128. Scott, D.W. and Szewczyk, W.F. (2006), "The Stochastic Mode Tree and Clustering," *J. Comp. Graph. Stat.*, tentatively accepted.

129. Scott, D.W. (2001), "Probability Density Estimation," *International Encyclopedia of the Social and Behavioral Sciences*, N. J. Smelser and Paul B. Baltes, eds., Pergamon, Oxford, pp. 12095-12099.

130. Scott, D.W. (2003), "The Case for Statistical Graphics," *Amstat News*, September issue, 315, pp. 20-22.

131. Scott, D.W. (2003), "Computational Issues in Nonlinear Optimization for Robust Estimation and Outlier Detection Using a Multivariate Minimum Distance Criterion," Bulletin of the International Statistical Institute 54th Session: Proceedings, Berlin, pp. 1-3.

132. Scott, D.W. (2004), "Outlier Detection and Clustering by Partial Mixture Modeling," Proceedings of COMPSTAT 2004, Ed. Antoch, Prague, pp. 453-464.

133. Wegman, E.J., Scott, D.W., and Said, Y.H. (2006), "Ad Hoc Committee Report on the 'Hockey Stick' Global Climate Reconstruction," on-line http://energy-commerce.house.gov/108/home/07142006_Wegman_Report.pdf.

PRESS OR GENERAL PUBLICATIONS

134. Scott, D.W. (2003), "Editorial" J. of Computational and Graphical Statistics, 12, pp. 757-758.

135. Scott, D.W. (2004) "Report on JCGS December 2003 Issue" IMS Bulletin 33 Jan/Feb 2004, p. 6.

136. Interview by Rachel Graves, "Texans Shoot for Mega Millions," Houston Chronicle, Metropolitan Section, February 2, 2004.

INVITED PRESENTATIONS AND CONFERENCES ATTENDED

"Three Easy Pieces: Modes, Bumps, and Mixtures," Dept of Statistics and OR, University of North Carolina, November 3, 2014.

"Three Easy Pieces: Bumps, Modes, and Mixtures," Dept of Statistics, North Carolina State University, August 29, 2014;

"Revisiting I.J. Good's Bump Surgery Algorithm," Contributed talk, Joint Statistical Meetings, Boston, August 4, 2014.

"The LASSO: Forward and Backward," Contributed talk, Joint Statistical Meetings, Montreal, August 5, 2013.

"Robust Fitting of a Three-Parameter Weibull Model for Contaminated Survival Data with Optional Censoring," Joint Contributed talk, Joint Statistical Meetings, Montreal, August 8, 2013, Jingjing Yang, presenter.

"Five Easy Pieces," UT School of Public Health, Houston, February 21, 2013.

"Robust Methods for Forecast Aggregation," with Jaime Ramos, Joint Statistical Meetings, San Diego, August 1, 2012.

"Visualizing Model Uncertainty," Keynote Address, Rice University Math School Project annual meetings, Houston, September 24, 2011.

"Can the Carnegie University Classification Methodology be Improved?," Colloquium talk, Rice University, September 12, 2011; Los Alamos National Labs, March 19, 2012.

"Can the Carnegie Research University Classification Methodology be Improved?," Contributed talk, Joint Statistical Meetings, Miami, August 2, 2011.

"Visualizing Model Uncertainty," Invited colloquium, Department of Statistics, Ohio State University, Columbus, March 10, 2011.

"How To Stand Out in the Interview," Workshop on Negotiating the Ideal Faculty Position, Rice University NSF Advance, Houston, September 20, 2010.

"Hiding From Decision Tree Detectors," 41st Symposium on the Interface of Statistics, Seattle, June 17, 2010.

"Robust Parametric Classification and Variable Selection with Minimum Distance Estimation," 41st Symposium on the Interface of Statistics, Seattle, June 17, 2010 (presented by Eric Chi).

"Parametric Methods for Smooth Quantile Regression," 41st Symposium on the Interface of Statistics, Seattle, June 17, 2010 (presented by Jonathan Lane).

"Streaming Poisson Data," Contributed talk, Army Conference on Applied Statistics, VMI, October 22-24, 2008; Invited talk, LANL, Los Alamos, May 6, 2009; Special contributed talk, JSM, Washington, DC, August 6, 2009 (presented by Bill Szewczyk).

"Understanding Feature Spaces for Biometrics Applications," Invited talk, VIGRE seminar, Rice University, March 18, 2009.

"A Statistician Looks at Uncertainty," Invited Colloquium, Flury Lecture, University of Indiana, March 3, 2009; Colloquium, Rice University, March 22, 2010.

"Multivariate Outlier Detection and Streaming Poisson Data," Invited Colloquium, University of Georgia, October 14, 2008.

"Poisson Streams of Data," Research Seminar, Sabre Inc, August 21, 2008; Colloquium, Rice University, October 6, 2008.

"Multivariate Outlier Detection by Partial Mixture Fits," Special Contributed Session, Joint Statistical Meetings, Denver, August 3, 2008.

"How To Choose A Journal," NISS/ASA Writing Workshop for Junior Researchers, Joint Statistical Meetings, Denver, August 3, 2008.

"Smoothed Histograms on Irregular Meshes with Streaming Data," Invited Presentation, 13th Army Conference of Applied Statistics, Rice University, October 17, 2007; Research Seminar, Sabre Inc, October 15, 2007.

"Understanding Data and Models: Optimal Smoothing of Histograms and Visualizing Parameter Sensitivity," Invited colloquium, Wharton School, U. Penn, March 21, 2007; Research Seminar, Sabre Inc, January 15, 2007.

"Remarks on Optimal Smoothing of Histograms and Visualizing Parameter Sensitivity," Invited Colloquium, Johns Hopkins University, November 2, 2006; Department of Defense, November 13, 2006; Department of Statistics, Penn State University, December 7, 2006.

"Testing for Bimodality with Mixture Models," Invited Talk, KNEMO, September 6, 2006, Capri, Italy.

"Graphical Methods for Understanding Parameter Uncertainty," Contributed Talk, CompStat 2006, August 31, 2006, University of Rome.

"Multivariate Visualization by Density Estimation," Invited Talk, Data and Information Visualization Workshop, August 24, 2006, Humboldt University, Berlin.

"Discussion of Three Papers By Minnotte, Stuetzle, and Loader," Invited Session, Joint Statistical Meetings, August 6, 2006, Seattle.

"Remarks on Optimal Smoothing of Histograms," Contributed Talk, 38th Symposium on the Interface of Statistics, Computing Science, and Applications, May 6, 2006, Pasadena, CA.

"Data Mining Without Bounds," Invited talk, NAS Committee on Technical and Privacy Dimensions of Information for Terrorism Prevention and Other National Goals, April 27, 2006, Washington, DC.

"Understanding Feature Spaces for Biometrics Applications," Invited talk, AAAS Annual Meeting, St. Louis, MO, February 20, 2006.

"Clustering via Mixture and Kernel Density Estimation," Colloquium, Dept of Statistics, Rice University, Houston, January 26, 2006.

"Assessing Risk and Fairness: The Role of Statistical Science in Policy," Colloquium, Rice University Mathematics Initiative, Pin Oaks Middle School, June 26, 2005; Invited Workshop Plenary

Address, Rice University School Mathematics Project, Rice Middle School, February 4, 2006. Colloquium, Rice University Mathematics Leadership Institute, Pin Oaks Middle School, June 9, 2009.

"Mixtures and Kernels for Density-Based Clustering," Plenary address, Twelfth International Conference on Statistics, Combinatorics, Mathematics and Applications, December 2-4, 2005, Auburn, Alabama.

Statistics on Networks, National Academy of Science, September 26-27, 2005, Washington, DC.

"Introductory Overview Lecture on Multivariate Density Estimation," invited lecture, Joint Statistical Meetings, Minneapolis, August 1, 2005.

"Lectures on Density Estimation, Clustering, Visualization, and Discrimination," July 5-8, 2005, Rice University Summer Institute of Statistics, NSF/NSA REU, Javier Rojo, PI.

"Mixtures at the Interface," Keynote address, Joint Meeting of the Interface of Computing Sciences and Statistics and the Classification Society of North America, St. Louis, Missouri, June 9, 2005; colloquium, Los Alamos National Labs, June 21, 2005; colloquium, Sabre Decision Technologies, June 29, 2005; colloquium, National Security Agency, July 14, 2005; colloquium, University of Chicago, October 3, 2005.

Conference of Texas Statisticians, SMU, Dallas, Texas, April 1-2, 2005.

"Remarks on Mixtures of Regressions," Invited talk, ENAR, Austin, Texas, March 23, 2005.

"Understanding and Visualization of Feature Spaces for Biometrics Applications," Invited Talk, National Academy of Sciences, Workshop on Technology, Policy, and Cultural Dimensions of Biometric Systems Washington, DC, March 15-16, 2005.

"Visualization, Feature Discovery, and Uncertainty," Invited Talk, National Academy of Sciences, Workshop on Visualization of Uncertain Information, Washington, DC, March 3-4, 2005.

"Histogram Calibration and Visual Clustering," guest math stat lecture, November 17, 2004, Trinity University and UT San Antonio.

"Data Mining, Clustering, and Robust Partial Mixture Estimation," invited speaker, October 22, 2004, 12th Merck-Temple Conference, Philadelphia, PA.

"Comments on Receiving the Army Wilks Award," U.S. Army Conference on Applied Statistics, October 20, 2004, Atlanta.

"Outlier Detection and Digital Government Applications," invited colloquium, October 12, 2004, National Center for Atmospheric Research, Boulder, Colorado.

"Robust Minimum Distance Mixture and Regression Modeling," invited colloquium, October 11, 2004, Department of Statistics, Colorado State University, Fort Collins.

"Mode-Based Clustering and Data Skewers," invited colloquium, October 8, 2004, Department of Mathematics, University of Colorado at Denver.

"Outlier Detection and Clustering by Partial Mixture Modeling," Invited talk, August 24, 2004, Compstat 2004, Prague, Czech Republic.

"Data Mining by Skewering a Data Cloud," July 27, 2004, 6th World Congress of the Bernoulli Society, Barcelona, Spain.

"Lectures on Density Estimation, Clustering, Visualization, and Discrimination," July 6-9, 2004, Rice University Summer Institute of Statistics, NSF/NSA REU, Javier Rojo, PI.

"Alternatives to Mixture Modeling in High Dimensions," Invited talk, Interface of Computing Science and Statistics, Baltimore, MD, May 28, 2004.

"Gaussian Mixture Estimation With Incomplete Models," Invited talk, Fifth Biennial International Conference of the International Indian Statistical Association (IISA), Athens, GA, May 15, 2004.

"Gaussian Mixture Regression," invited talk, Sabre, Dallas, April 18, 2004.

"Solving Unusual Problems in Statistics," Invited talk, Houston Area Chapter of the American Statistical Association, Houston, April 13, 2004.

"Partial Mixture Estimation for Outlier Detection, Mapping, and Clustering of Large Datasets," invited talk, Sixth Annual Winter Workshop on Data Mining, Statistical Learning, and Bioinformatics, University of Florida, Gainesville, January 8-10, 2004.

"Clustering by Local Skewering," invited talk, Ninth Army Conference on Applied Statistics, Napa, CA, October 30, 2003; invited talk, Sabre, Dallas, December 8, 2003.

"Computational Issues in Nonlinear Optimization for Robust Estimation and Outlier Detection Using a Multivariate Minimum Distance Criterion," invited talk, International Statistical Institute, Berlin, Germany, August 15, 2003.

"Remarks on Outliers and Smoothing Conditional Maps," invited talk, Joint Statistical Meetings, San Francisco, August 4, 2003.

"Advice on Publishing in JCGS," invited talk, IMS Young Researchers Conference, Davis, CA, August 1, 2003; Joint Statistical Meetings, San Francisco, August 3, 2003.

"Partial Mixture Estimation and Outlier Detection in Data and Regression," invited colloquium, Statistics Dept, U. of Iowa, March 4, 2004; invited colloquium, Statistics Dept, Carnegie Mellon U., January 26, 2004; invited colloquium, Statistics Dept, Rice U., October 27, 2003; invited colloquium, Wharton School, U. Penn, October 15, 2003; invited talk, IDA-CCS, Bowie, MD, July 24, 2003; invited talk, ICORS 2003, Antwerp, Belgium, July 14, 2003; invited talk, CSE, Ottowa, Canada, June 5, 2003; invited talk, Sabre, Dallas, May 27, 2003.

"Finding Outliers in Models of Spatial Data," invited talk, Third National Conference on Digital Government, Boston, May 19, 2003.

"Data Mining and Support Vector Machines," invited talk, Sabre, Inc, Dallas, April 28, 2003.

"Discussion on Statistical Computing," Session Organizer, Conference of Texas Statisticians, College Station, Texas, April 4, 2003.

"Partial Mixture Estimation With Application to Clustering," Invited talk, ENAR, Tampa, Florida, March 31, 2003.

"Model Building and Diagnostics for Massive Data Sets," Invited talk, Interface of Computing Science and

Statistics, Salt Lake City, Utah, March 13, 2003.

'Remarks on Fitting Mixtures of Regressions and Handling Outliers in Data and Regression," Invited Colloquium, Department of Statistics, North Carolina State University, Raleigh, January 17, 2003; Invited seminar, NIOHS/CDC, Morgantown, WV, March 10, 2003.

"Discussion and New Opportunities for Visualization," Invited talk, Data Visualization Workshop, Augsburg, Germany, October 6-9, 2002.

"Partial Mixture Estimation For Handling Outliers in Data and Regression," Invited Colloquium, Department of Statistics, University of Michigan, Ann Arbor, September 27, 2002.

"Rich Mixtures for Multidimensional Smoothing," Invited Talk (joint with Bill Szewczyk), Nonparametric Section, Joint Statistical Meetings, New York City, August 12, 2002.

"After Maximum Likelihood, What? Some Insights on Handling Outliers in Data Mining and Regression," Invited Talk, NASA Faculty Fellowship Program (200 hundred faculty and students), NASA Langley Research Center, Hampton, Virginia, July 30, 2002; Invited Talk, Data Mining Workshop, CSE, Ottawa, Canada, November 13, 2002.

"Multivariate Density Estimation and Visual Clustering," Invited Tutorial, Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, Edmonton, Alberta, Canada, July 25, 2002; Invited Tutorial, CSE, Ottawa, Canada, November 14, 2002.

"After Maximum Likelihood, What? Remarks on Handling Outliers in Data and Regression," Invited talk, IBM Research, White Plains, NY, June 28, 2002

"Assessing Risk and Fairness: The Role of Statistical Science in Policy," invited talk, Cleveland Chapter of the ASA, Cleveland State University, June 5, 2002.

"A New Approach to Finding and Testing Clusters," Invited presentation, Workshop on Developments and Challenges in Mixture Models, Bump Hunting and Measurement Error Models, Case Western Reserve University, Cleveland, June 2, 2002; Invited Colloquium, Department of Statistics, University of West Virginia, Morgantown, WV, March 9, 2003.

"Remarks on Handling Outliers in Data and Regression," Invited paper, Workshop on Statistical Modeling and Inference, Institute of Statistics, Louvain-la-Neuve, May 21, 2002, Belgium; Invited Colloquium, Department of Statistics, University of Chicago, October 14, 2002.

"Modeling the Stochastic Frontier with a Nonparametric Criterion," Invited paper, Annual Meeting of the French Statistical Society, May 16, 2002, Brussels, Belgium.

Participant, NSF Workshop on "Statistics: Challenges & Opportunities for the 21st Century," Information Technology Group, May 6-8, 2002, Arlington, VA.

"After Maximum Likelihood, What?" Invited Colloquium, Exxon-Mobil Co., April 26, 2002, Houston.

"Partial Component Regression," Interface 2002, Contributed paper, April 18, 2002, Montreal; Invited Colloquium, Sabre, April 12, 2002, Dallas.

"Conditional Maps of Continuous Variables" Interface 2002, Contributed paper, with Blair Christian, April 18, 2002, Montreal.

"From Kernels to Mixtures to Clusters," Interface 2002, Contributed paper, with Bill Szewczyk, April 18, 2002, Montreal.

Discussant, "Clustering and Mixture Modeling Applications," ENAR/IMS, Arlington, VA, March 18, 2002. Speakers: Bruce Lindsay, Carey Priebe, and Guenther Walther.

"A New Approach to Finding and Testing Clusters," SCBMB Seminar, Baylor College of Medicine, Houston, February 13, 2002.

"Outlier Detection in Maps," NSF Digital Government Workshop, Washington, DC, November 1-2, 2001.

"On a New Approach to Robust Estimation," Plenary Address, 7th US Army Conference on Applied Statistics, Santa Fe, October 24, 2001.

"Parametric Estimation with a Nonparametric Criterion," Colloquium, Dept of Statistics, Rice University, September 17, 2001.

"Finding Outliers in Regression Data," Contributed Talk, Joint Statistical Meetings, Atlanta, August 8, 2001.

Invited Panelist, Journal Panel Session, Fifth North American Meeting of New Researchers, IMS, Georgia Tech, Atlanta, August 3, 2001.

"After Maximum Likelihood, What?," Plenary Address, SIAM Annual Meetings, San Diego, July 10, 2001.

"Outlier Detection and Minimum Distance Applications," Invited Minisymposium Talk (with Bill Szewczyk), SIAM Annual Meetings, San Diego, July 10, 2001.

"Outlier Detection by a Minimum Distance Criterion," Invited talk, Southern Regional Conference on Statistics, St. Augustine, FL, June 4, 2001.

"Visual Clustering with Mixture Models," Invited Talk, Data Visualization II Workshop, George Mason University, May 24, 2001.

"Conditioning Multiple Maps," Invited talk (with W. Wojciechowski), National Conference for Digital Government Research, Los Angeles, May 21, 2001.

"Nonparametric Clustering for Data Mining," Colloquium, University of Texas, April 20, 2001.

"Clustering by Partial Mixture Estimation," Invited talk, Nonlinear Estimation and Classification Workshop, Mathematical Science Research Institute, Berkeley, March 19, 2001 (see http://msri.org/publications/ln/msri/2001/nle/scott/1/).

"Nonparametric Clustering," Invited talk, Conference on Nonparametrics in Large, Multidimensional Data Mining, SMU, Dallas, January 13, 2001; Colloquium, Case Western Reserve University, March 6, 2001; Invited Talk, 33rd Symposium on the Interface of Computing Science and Statistics, Los Angeles, June 14, 2001.

"Assessing Risk and Fairness: The Role of Statistical Science in Policy," Scientia Colloquium, Rice University, December 5, 2000; Sabre, Dallas, December 9, 2000; Statistics Colloquium, Los Alamos National Labs, December 15, 2000; Colloquium, Case Western Reserve University, March 7, 2001.

"A New Understanding of Bank Failures and Household Incomes Using Robust Statistical Mixture Modeling," Colloquium, University of Texas San Antonio, December 6, 2000.

"Clustering and Partial Mixture Estimation," Contributed talk, Army Conference on Applied Statistics, Houston, October 18, 2000.

"Graphical Data Mining With Applications," Plenary talk, Taller Internacional de Mineria de Datos, Colegio de Postgrado, Texcoco, Mexico, September 28, 2000. Panel discussion on Future of Data Mining, September 29, 2000.

"The Role of Continuity in Visualization of High-Dimensional Data," Invited Presentation, Joint Statistical Meetings, Indianapolis, IN, August 17, 2000; Colloquium, Case Western Reserve University, March 8, 2001.

"High-Dimensional Data Analysis, Visualization, and Nonparametric Function Estimation," Short Course (7 hours), III Taller de Computacion Matematica, CIMAT, Guanajuato, Mexico, July 3-6, 2000.

"Bank Failures, Household Income Distribution, and Robust Mixture Modeling," Invited Talk, Washington Statistical Society, Washington, D.C., May 31, 2000.

"Robust Mixture Modeling and Data Mining Applications," Invited Speaker, Data Mining Theme, Army Research Laboratory, Aberdeen, Maryland, April 27, 2000.

"Multiple Outlier Detection," Interface of Computing Science and Statistics, New Orleans, April 7, 2000.

"Multivariate Density Estimation and Visual Clustering" Short Course, National Security Agency, January/February, 2000; Sabre, Inc., Spring, 2000.

"Remarks on Fitting and Interpreting Mixture Models," Invited Talk, Institute for Defense Analysis, Bowie, Maryland, Spring, 2000.

"From Bumps to Modes to Statistical Clustering," Invited Presentation, Sabre, Inc., Dallas, March 26, 2000.

"Feature Testing by Kernel Patches and Mixture Estimation," invited presentation, ENAR/IMS meetings, Chicago, March 19, 2000.

Attended, Third Annual DOE/MICS Workshop on Predictability of Complex Phenomena, December 6-8, 1999, Los Alamos; NAS Complex Modeling Workshop, December 3-4, 1999, Santa Fe.

"Robust Mixture Modeling and Applications," Statistics Colloquium, Rutgers University, November 3, 1999; Keynote Address, Mid-Atlantic Probability and Statistics Day, University of Maryland Baltimore County, November 13, 1999; Colloquium, National Security Agency, 2000; Colloquium, Department of Statistics, George Washington University, Washington, D.C., January 21, 2000; Colloquium, Department of Statistics, Case Western Reserve University, March 3, 2000.

"Multivariate Spatial Estimation and Robust Estimation," Invited Talk, National Academy of Sciences, Workshop on Statistical Methods for Reducing Uncertainty in Ocean Sciences Models, Washington, DC, September 13-14, 1999.

"Modeling the Stochastic Frontier with a Nonparametric Criterion," Invited Talk, Joint Statistical Meetings, August 10, 1999, Baltimore, MD.

"New Algorithms For Pattern Recognition and Image Processing," Invited Talk, 31st Symposium on the Interface of Computing Science and Statistics, Chicago, June 10, 1999.

"Simplifying Mixture Models with Applications," Invited Talk (with William Szewczyk), 31st Symposium on the Interface of Computing Science and Statistics, Chicago, June 10, 1999.

"Robust Location Estimation with L2 Distance," (with William C. Wojciechowski), Invited Talk, 31st Symposium on the Interface of Computing Science and Statistics, Chicago, June 11, 1999.

"After Maximum Likelihood, What? With Econometric Applications to Income Distribution Trends and Stochastic Frontier Modeling," Invited Colloquium, SABRE Technology, November 6, 1998, Dallas; Invited Colloquium, Los Alamos National Laboratories, January 28, 1999; Invited Colloquium, Dept. of Math and Statistics, University of New Mexico, Albuquerque, January 29, 1999.

"After Maximum Likelihood, What? Fitting Mixtures With Applications to Income Distribution Trends and Stochastic Frontier Modeling," Econometrics Seminar, Rice University, October 30, 1998; Mathematics Seminar, William and Mary, February 19, 1999; Mathematical Sciences Colloquium, Johns Hopkins University, September 14, 1999; Statistics Colloquium, Virginia Tech, October 21, 1999.

"Fitting Mixtures With Applications to Income Distribution Trends Using Minimum Distance Criteria," Invited talk, Clifford Conference, Tulane University, New Orleans, Louisiana, October 23-25, 1998.

"After Maximum Likelihood, What? Remarks on Econometric Applications to Income Distribution Trends and Frontier Modeling," Statistics Colloquium, Texas A&M University, October 1, 1998.

"After Maximum Likelihood, What? Remarks on Fitting Mixtures With Applications to Income Distribution Trends and Frontier Modeling," Statistics Colloquium, Rice University, October 14, 1998.

"After Maximum Likelihood, What?" Mathematics Colloquium, National Security Agency, August 20, 1998; Mathematics Colloquium, IDA-CCR, Princeton, NJ, May 3, 1999.

"Clustering Techniques with an Application to Tissue Typing using 3D MRI Slices," Invited Talk, Image Research Workshop, Pittsburgh Supercomputer Center, July 26, 1998.

"Structure Criteria and Visualization for Projection Pursuit," Invited talk, Data Visualization in Statistics workshop, Drew University, Madison, New Jersey, July 6-10, 1998.

"Remarks on Fitting Mixtures With Applications to Income Distribution Trends and Frontier Modeling," Statistics Colloquium, University of Louvain-la-Neuve, Belgium, June 9, 1998.

"On Fitting and Adapting of Density Estimates," Invited talk, Houston Area Chapter of the American Statistical Association, Houston, May 12, 1998; Invited Talk, 30th Symposium on the Interface of Computing Science and Statistics, Minneapolis, May 14, 1998.

"Statistics and Massive Data Sets: A New Look at Exploration Challenges and the Method of Moments," Mathematics Colloquium, University of Arizona, Tucson, March 12, 1998.

"Remarks on Fitting Mixtures With Applications to Income Distribution Trends and Frontier Modeling," Statistics Colloquium, University of Louvain-la-Neuve, Belgium, March 4, 1998.

"Nonparametric Regression for Geographical Visualization and Analysis of Complex Surveys," (with Gerald Whittaker), Invited Paper, Current Topics in Survey Sampling Workshop, University of Nebraska, Lincoln, October 24-26, 1997.

"Statistics and Massive Data Sets: A New Look at Exploration Challenges and the Method of Moments," Invited Paper, San Diego Supercomputer Center Workshop on "Approaches to the Analysis Visualization of Massive Data Sets" March 14-15, 1997, San Diego; Invited Paper, University of Washington/Microsoft Summer Research Institute on Data Mining, July 7-11, 1997, Seattle; Invited Colloquium, SABRE Technology, July 18, 1997, Dallas; Invited Paper, 12th Annual Meeting of the Mexican Statistical Association, September 22-26, 1997, Mexico City; Invited Colloquium, Dept. of Statistics, Southern Methodist University, October 31, 1997, Dallas.

"Adaptive Density Estimation With Massive Data Sets," Contributed paper, ASA Annual Meeting, August 10-14, 1997, Anaheim, CA.

"Clustering and Density Estimation With Massive Data Sets," Invited paper, IMS Annual Meeting, July 28-31, 1997, Park City, Utah; Invited paper, Symposium on Nonparametric Functional Estimation, October 13-24, 1997, CRM, Universite de Montreal; Statistics Colloquium, University of Louvain-la-Neuve, Belgium, March 4, 1998.

"Applications of the Averaged Shifted Histogram in Environmental Economics," (with Gerry Whittaker), and "Dimension Reduction Via Kernel Bias Decomposition," (with Mark Marson), Invited Papers 29th Interface of Computing Science and Statistics, May 14-17, 1997, Houston.

Director, RIMS (Rice Institute for Mathematical Sciences), Summer 1996, 1997, and 1998; Series of Lectures on Pattern Recognition and Nonparametrics, with guest lecturers, some 15 undergraduate and graduate Rice students each summer.

"Remarks on Making Smoothing Methods Work Better in Several Dimensions," Invited Paper, Nonparametric Function Estimation Workshop, NYU Stern School, May 30, 1997, New York City.

"Bumps Along the Road Towards Multivariate Mode Trees," (with William Szewczyk) Invited talk, NSF Workshop on Bumps, Jumps, Clustering and Discrimination, May 11-14, 1997 Houston. (Extra modes.)

"Locally Adaptive Density Estimation: Theory and Application," Invited Presentation, Workshop on the Art of Nonparametric Statistics: Methodologies and Applications, February 19-21, 1997, Louvain-la-Neuve, Belgium.

"Visualization and Exploration of Statistical Data," Keynote Address, 13th Annual Ohio Statistics Conference, The Cleveland Clinic Foundation, November 22, 1996, Cleveland, Ohio.

Fourth Invitational Mathematics Meeting, NSA, Fort Meade, November 17-19, 1997.

"Remarks on Improved Density Estimation in the Tails," Invited paper, IMS-SISC Congress, July 11, 1996, Sydney, Australia.

"Remarks on Locally Adaptive Kernel Density Estimation," Invited paper, Workshop on Future of Smoothing, July 2, 1996, Canberra, Australia; Colloquium, Department of Statistics, George Mason University, September 6, 1996; Invited paper, ASBMB Workshop on Biochemistry, October 26, 1996, Whistler, Canada; Colloquium, Department of Statistics, Case Western Reserve University, November 21, 1996; Colloquium, Department of Statistics, Ohio State University, March 6, 1997.

"Adaptive Kernel Density Estimation," Colloquium, Department of Statistics and Probability, Michigan State University, January 12, 1996, Lansing, Michigan.

"Visual Clustering, Modes, and Nonparametric Density Estimation," Campus Theory Seminar, Michigan State University, January 11, 1996, Lansing, Michigan.

"Histogram Estimation with Censored Data and Spatial Smoothing," Invited paper, Smoothing and Resampling in Economics Conference, October 4-7, 1995, Berlin, Germany.

"The Density Grand Tour: A New Visualization Tool," Invited paper, Satellite Workshop on Dynamic Statistical Graphics, July 7, 1996, Macquarie University, Sydney, Australia; Invited paper, Paris-Berlin Seminar on Mathematical Statistics, September 25-29, 1995, Schmerwitz, Germany.

"Incorporating Density Estimation Into Other Exploratory Tools," Special contributed paper, Annual Meeting of the ASA, Orlando, FL, August 15, 1995.

" 'X' Years From the Grand Tour," Discussion of papers by Buja, Cook, and Stuetzle, Annual Meeting of the ASA, Orlando, FL, August 14, 1995.

"Visualization of Ground-Water Contamination Data," Invited Paper, 27th Interface of Computing Science and Statistics, June 21-24, 1995, Pittsburgh.

"Multivariate Applications of the ASH in Regression," Invited paper, IMS Regional Meeting, Iowa City, May 15, 1995; Colloquium, Bureau of Labor Statistics, Washington, D.C., February 24, 1997 (with Gerald Whittaker).

"A Day in the Life of a Statistician: Research and Teaching," Lecturer, 5 periods, pre-calculus, Bellaire High School, May 9, 1995; March 21, 1997.

"Data Understanding and Visualization," Keynote Address, Conference of Texas Statisticians, Trinity University, San Antonio, TX, April 7, 1995.

Discussant, Paper by R.O. Wells, Scientia, Rice University, February 21, 1995.

"Unusual Regressions: Coping With Practical Problems," Invited Presentation, Groundwater Session, SIAM, San Antonio, February 8, 1995; Sabre, Inc., Dallas, January 10, 2000; CIMAT, Guanajuato, Mexico, July 5, 2000.

"Spatial Mapping with Several Covariates, Adaptive Smoothing, and Clustering," Colloquium, Rand Corporation, Santa Monica, CA, November 17, 1994.

"Regression, Clustering, and Modes," Colloquium, Dept. Statistics, Rice University, November 7, 1994.

"Making Sense of Data: Computer-Aided Pattern Discovery," Short Course (John Elder main instructor), Continuing Education Dept, Rice University, October 13-14, 1994; ASA Continuing Education, Chicago, August 4, 1996.

"Overview of the Mode Tree and Nonparametric Methods for Clustering and Discrimination," Colloquium, CML Research Group, Rice University, September 23, 1994.

"The Mode Tree and Multivariate Classification" Special Invited Paper, Annual Meeting of the ASA, Toronto, CA, August 17, 1994.

Discussant of papers by Trevor Hastie, Peter Green, and Randy Eubank, ''Fitting Curves to Data: How to Do It'', Annual Meeting of the ASA, Toronto, CA, August 17, 1994.

''Statistical Graphics Section: Spending Section Funds and New Initiatives,'' ASA Annual Meeting, Round Table Luncheon, Toronto, CA, August 15, 1994.

''Overview of Nonparametric Density Estimation and Regression Estimation'' Colloquium, Federal Reserve Bank, Washington, DC, July 5, 1994.

''Spatial Estimation and Presentation of Regression Surfaces in Several Variables Via the Averaged Shifted Histogram'' Invited Talk, Interface of Computer Science and Statistics, Research Triangle Park, NC, June 17, 1994.

''Algorithms for Estimation and Visualization of Multivariate Density Functions with Applications to Clustering'' Short Course, Interface of Computer Science and Statistics, Research Triangle Park, NC, June 15, 1994.

''Visualization and Estimation of Density Functions of Three and Four Dimensional Geological Data'' Invited presentation, Annual Meeting of the American Geophysical Union, Baltimore, MD, May 24, 1994.

Discussant of paper by J. Whittaker on ''Mapping and the Averaged Shifted Histogram'', Washington Statistical Society, January 31, 1994.

''Visual Clustering, Modes, and Nonparametric Density Estimation'' Colloquium, Department of Math and Statistics, American University, Washington, DC, November 30, 1993; Colloquium, Cryptology-Mathematics Institute, NSA, January 6, 1994; Invited presentation, Annual Meeting of the VA/MD/DC Chapter of the Mathematical Association of America, University of St. Mary's, St. Mary's City, Maryland, April 15-16, 1994; Invited talk, Washington Statistical Society, ASA, Bureau of Labor Statistics, Washington, DC, May 4, 1994; Stephen F. Austin University, Nacogdoches, TX, October 21, 1994; Colloquium, Houston Area Chapter of the ASA, November 8, 1994.

''Elements of Histogram Estimation'' Round table discussion, Medical Research Council, Tygerberg, Capetown, South Africa, November 15, 1993.

''Finding Structure in Multivariate Data Using Density Estimators and Advanced Visualization'' Colloquium, Sandoz Pharmaceuticals Co, East Hanover, NJ, October 5-6, 1993.

''Introduction to Data Visualization'' and ''From Histograms to Kernel Estimators'' Keynote Speaker, Annual Meeting of the SASA, University of Natal, Pietermaritzburg, South Africa, November 3--5, 1993.

''Quality of Estimation and Issues in Bandwidth Selection'' Address, Joint meeting of ORSSA and SASA, Johannesburg, South Africa, November 8, 1993.

''Multivariate Density Estimation and the Curse of Dimensionality'' Invited talk, National Institutes of Health, October 14, 1992; National Security Agency, October 15, 1992; Colloquium, SUNY Albany, March 26, 1993; Colloquium, Department of Statistics, East Lansing, MI, April 29, 1993; Colloquium, Department of Mathematics, Michigan Tech University, Houghton, MI, February 17, 1994; Colloquium, Department of Statistics, Bell Labs, Murray Hill, NJ, April 28, 1994.

"Multivariate Density Estimation and Visual Clustering" Short Course, Classification Society of North America, University of Pittsburgh, June 24, 1993; Short Course, Army Research Office Design of Experiments Conference, Rice University, October 18-19, 1993; Short Course, National Security Agency, Fort Meade, MD, April 5 - May 17, 1994; Short Course, Annual Meetings of the American Statistical Association, Toronto, Canada, August 13, 1994.

"Nonparametric Density Estimation as an Aid to Tissue Characterization in Magnetic Resonance Imaging" Contributed Poster, 3rd Keck Symposium on Computational Biology, Houston, November 1-3, 1992, with R.K. Hutson.

"Visualization of Response Surfaces in Several Variables" Invited lecture, 38th Conference on the Design of Experiments in Army Research, Development, and Testing, Santa Monica, CA, October 28-30, 1992.

"Modern Statistics, Exploring Multivariate Data, and Computer Visualization" Invited Talk, Rice University High School NSF Math Project, September 26, 1992; High School NSF Math Project, June 10, 1993.

"Cross-Validation of Multivariate Density Estimates" Colloquium, Department of Statistics, Rice University, September 21, 1992; National Security Agency, January 4, 1993; Interface of Computer Science and Statistics, San Diego, April 15-17, 1993; Colloquium, Department of Statistics, Michigan State University, April 28, 1993; Colloquium, Department of Statistics, George Mason University, September 17, 1993; Colloquium, Department of Mathematics, Michigan Tech University, Houghton, MI, February 18, 1994.

"Visualization of Multivariate Data Through Nonparametric Estimators" Invited Talk, ASA Annual Meeting, Boston, MA, August 11, 1992.

"Stimulating Research in Statistical Graphics," ASA Annual Meeting, Round Table Luncheon, Boston, MA, August 11, 1992.

"Ozone and Air Quality in Houston, 1980-1990" Invited Talk, ASA Annual Meeting, Boston, MA, August 12, 1992 (joint with K. Ensor).

"Extensions of Oversmoothed Bandwidth Rules to Regression" Invited talk, IMS Regional Meeting, Corvallis, OR, June 17, 1992.

"Multivariate Density Estimation" Series of six invited talks at the 15th Finnish Summer School in Probability, Lahti, Finland, June 1-5, 1992.

"Statistical Aspects of the Ozone Problem in Houston" Invited presentation, Texas Air Quality Board, Austin, TX, February 4, 1992.

"Visualization and Quality of Multidimensional Statistical Functions" Colloquium, Department of Mathematics and Statistics, University of Texas, El Paso, January 31, 1992; Colloquium, University of Texas School of Management, February 4, 1992; Interface of Computer Science and Statistics, College Station, March 19, 1992; Department of Statistics, Rice University, March 30, 1992; Department of Mathematics, Rice University, April 1, 1992; Invited colloquium, Mathematical Sciences Research Institute, Berkeley, CA, May 13, 1992.

"Unusual Regressions" Speech, Austin Chapter of the American Statistical Association, February 4, 1992; Invited lecture, National Computer Graphics Association, Anaheim, CA, March 12, 1992;

Invited colloquium, Keck Symposium, Rice University, May 8, 1992; Invited colloquium, Department of Statistics, Stanford University, May 12, 1992; Invited colloquium, Department of Math, Sam Houston State, February 5, 1993; Invited colloquium, San Antonio Chapter of the ASA, April 21, 1993; Invited colloquium, Department of Statistics, University of Wits, Johannesburg, South Africa, November 9, 1993; Invited colloquium, Department of Statistics, University of Orange Free State, Bloemfontein, South Africa, November 10, 1993; Invited colloquium, Department of Statistics, University of Cape Town, South Africa, November 12, 1993; Colloquium, Delaware/Maryland ASA Chapter, Aberdeen, MD, March 10, 1994.

"Visualization and Animation of Statistical Functions," Invited lecture, 37th Conference on the Design of Experiments in Army Research, Development, and Testing, Vicksburg, MS, October 23-25, 1991.

"Variations on Oversmoothed Bandwidth Rules" Contributed Lecture, Annual Meeting ASA, Atlanta, GA, August 19-22, 1991.

Invited lecturer, 48th Session ISI, "Visualization of Low-Dimensional Statistical Data," Cairo, Egypt, September 10, 1991.

Invited lecturer, Annual Meeting, South Carolina ASA Chapter, April 26, 1991, "Density Estimation."

Invited lecturer, Clemson University, April 22-26, 1991: "Scientific Visualization and Multidimensional Statistical Functions"; "Quality of Estimation of Multidimensional Surfaces"; "Multivariate Adaptive Procedures and Projection."

"Visualization and Quality of Multidimensional Statistical Functions" research seminar, IMSL, Inc., Houston, February 8, 1991; Workshop on Trends in the Analysis of Curve Data, University of Heidelberg, March 18-21, 1991.

"Multivariate Nonparametric Function Estimation and Visualization," ONR Workshop -- New Directions in Statistics, Arlington, VA, November 19, 1990.

"Analysis of King Crab Data," Poster Session, ASA Annual Meeting, Anaheim, August 6, 1990.

"Adaptive Smoothing and High--Dimensional Performance," Invited talk, IMS Annual Meeting, Uppsala, Sweden, August 14, 1990.

"Quality of Multivariate Density Estimation," Invited talk, Workshop on "Function Estimation and Statistical Applications," MSI, Cornell University, June 14-16, 1990.

"Multivariate Function Estimation and Visualization," Invited talk, Statistical Computing Conference, UT Austin, May 18, 1990.

Ulf Grenander conference, November 11-13, 1989.

"Statistical Data Analysis," Keynote Presentation, Thirty-Fifth ARO Design of Experiments Conference, Monterey, CA, October 18-19, 1989.

"Some Reflections on Estimation and Visualization of Multivariate Density Functions," Invited talk, Institute of Mathematics and Its Applications, Minneapolis, MN, August 18, 1989.

"Statistics in Motion: Where Is It Going?," Invited talk, ASA session "Is Real-Time Rotation Useful?", Washington, D.C., August 8, 1989.

"Visualizing Structure in High-Dimensional Data Using Density Estimation and Computer Graphics,"
Invited colloquium, Naval Postgraduate School, October 12, 1988; Invited colloquium, Texas
A&M University, October 26, 1988; Invited colloquium, University of North Carolina, November 7, 1988; Invited colloquium, University of Iowa, November 18, 1988; Invited colloquium,
University of Rochester, November 28, 1988; Invited colloquium, Southern Methodist University, January 27, 1989; Invited colloquium, University of Chicago, April 3, 1989; Invited colloquium, Yale University, December 11, 1989; Invited colloquium, Utah State University, January 25, 1990.

Invited participant, NSF-CBMS Regional Conference on Modern Computer Intensive Methods for Exploring and Modeling Multivariate Data, Jerome H. Friedman, Lecturer, George Washington University, June 12-16, 1989.

"Computer Graphics and Statistics," Invited colloquium, University Texas School of Public Health, March 20, 1989; Springwoods High School, May 11, 1989.

"The NeXT Computer Introduction," invited developers meeting, San Francisco, October 12-13, 1988.

"Unix Workstations: Constructing an Integrated Environment for Statistical Research, Education, and Administration," SREB Summer Research Conference in Statistics, Holiday Island, Arkansas, June 20, 1988.

"Recent Advances in Statistical Graphics," Invited colloquium talk, NSF School Mathematics Project, Rice University, June 16, 1988.

"Interactive Multivariate Density Estimation in the S Package," Invited Talk, Interface Conference, April 22, 1988; Organizer of invited paper session entitled "Density Estimation and Smoothing" for the 20th Interface of Computer Science and Statistics meeting in Washington, D.C., April 21-23, 1988: Speakers W. Haerdle, M. Tarter, D. Scott.

"Exploring Multivariate Data from Mount St. Helens," Invited Talk, American Statistical Association, Civic Center, San Francisco, August 20, 1987.

Organizer of invited paper theme session for ASA Statistical Graphics Section entitled "Applications of Recent Methodology in Statistical Graphics for Nonspecialist" at ASA San Francisco meeting, August 20, 1987: Speakers J. Wendelberger, D. Scott, M. Greenacre, and E. Wegman.

"Efficient Density Estimation in High Dimensions," Colloquium, Wirtschaftstheoretische Abteilung II, University of Bonn, June 25, 1987; Statistical Computing Conference, Gunzburg, GDR, July 8, 1987.

"Computational Issues and Examples in Multivariate Density Estimation," Invited Talk, Army Research Conference on Computational Statistics, George Mason University, Fairfax, Virginia, June 3-5, 1987.

"How Far Will Computer Graphics Take Us?" Invited Talk, The Biometric Society, Dallas, Texas, March 23, 1987: in IMS session "Statistics and the Computer Revolution: What Does the Future Hold?" with Bill Eddy (organizer) and Paul Tukey.

Organizer of invited paper session for ASA Statistical Graphics Section at the Biometric Society Meeting, Dallas, Texas, March 23, 1987: "New Methods in Statistical Graphics," Speakers: K. Ruben Gabriel, Barry W. Brown, and Andrew Donoho.

"Density Estimation as a Tool for Multivariate Graphical Data Analysis," Colloquium, Dept. of Statistics, North Carolina State University, January 30, 1987; Dept. of OR and Statistics, George Mason University, March 6, 1987; Dept. of Statistics, Penn State University, April 30, 1987; Dept. of Statistics, University of Kentucky, October 2, 1987; Western Research, Western Geophysical, Houston, October 28, 1987; Dept. of Mathematics, University of Texas - San Antonio, November 12, 1987; Dept. of Mathematics, Trinity University, November 13, 1987. Dept. of Statistics, University of Toronto, January 28, 1988;

ASA Regional Meeting, Orlando, FL, January 8-9, 1987; "Density Estimation in Data Analysis," Hands-on demonstration of ASH software on Macintosh; Discussant of papers by A. Buja and J. Bentley on "Graphics and Computing."

Short Course "Density Estimation for Statistics and Data Analysis," American Statistical Association, Palmer House, Chicago, August 16-17, 1986, 1.20 CEU's, (with Bernard Silverman).

"Comparative Analysis of Selected Data Sets Using Density Estimation," Invited poster session, ASA Annual Meeting, Chicago, August 19, 1986.

"Biased and Unbiased Cross-Validation for Nonparametric Density Estimators," Colloquium, Dept. of Statistics, Stanford, January 21, 1986; Colloquium, Dept. of Mathematics, U.C. San Diego, June 3, 1986; invited research seminar, Battelle Pacific Northwest Laboratories, Richland, WA, July 15, 1986; Colloquium, Dept. of Math Sciences, Rice University, October 20, 1986; Colloquium, Dept. of Statistics, Texas A&M University, October 24, 1986; research seminar, IMSL, Inc., Houston, November 21, 1986; Houston Chapter of ASA, January 13, 1987; Colloquium, Dept. of Statistics, University of North Carolina, Chapel Hill, February 2, 1987; invited talk, NSF-CBMS Regional Conference on Spline and Partial Spline Models in Statistics, Grace Wahba lecturer, Ohio State University, March 24 (23-27), 1987; invited talk, Semiparametric and Nonparametric Inference Conference, University of Western Ontario, May 24, 1987; Colloquium, Wirtschaftstheoretische Abteilung II, University of Bonn, July 2, 1987.

"Modern Data Analysis in Several Variables with Large Samples," invited research seminar, Battelle Pacific Northwest Laboratories, Richland, WA, July 15, 1986.

Session leader, AMS Summer Research Conference on Graphics, Human Interfaces, and Programming Paradigms for Data Analysis, University of Santa Cruz, CA, June 30- July 3, 1986.

"A Look at Earthquakes Preceding the March 20, 1982 Eruption of Mount St. Helens," Invited Talk, National Computer Graphics Association, Anaheim, CA, May 15, 1986; colloquium, Dept. of Geophysics & USGS, University of Washington, July 14, 1986.

Eighteenth Interface of Computer Science and Statistics, Fort Collins, CO, March 19-21, 1986.

"Empirical Modeling of the Response Time of Houston's Ambulance System," Colloquium, Dept. of Statistics, Stanford University, February 6, 1986; Sabre, Inc., Dallas, March 9, 2000.

"Density Curve Estimation and Representation in 3 and 4 Dimensions," ISI, Maastricht, Netherlands, August 23, 1985; Colloquium, Dept. of Statistics, Berkeley, September 10, 1985; Colloquium, Division of Statistics, U.C. Davis, October 10, 1985; Research Seminar, Becton-Dickinson, December 11, 1985; Colloquium, Dept. of Mathematics, U.C. San Diego, June 2, 1986.

"Graphical Multivariate Classification and Discrimination Using Nonparametric Density Estimation," seminar, Dept. of Statistics, Stanford University, July 9, 1985.

AMS Joint Summer Research Conference on Function Estimates, Humboldt State, July 28-August 3, 1985.

"Experiences with Examining Large Multivariate Data Sets with Graphical Nonparametric Methods," NASA/MPRIA Symposium, Texas A&M University, June 9-11, 1985; Remote Sensing Seminar, Dept. of Statistics, Stanford University, July 22, 1985, Paul Switzer, organizer.

"Classification Using Multivariate Nonparametric Density Estimation," NCGA, April 15-17, 1985.

"Using Workstations for Nonparametric Discrimination," Texas Conference of Statisticians/IMS, Austin, TX,. March 28-30, 1985; College Station, 1987; Waco, 1988 (Organizer: Haerdle, Ensor, and Johnstone).

"Choosing Smoothing Parameters for Nonparametric Kernel Density Estimators," Interface of Computer Science and Statistics, Lexington, KY., March 19, 1985.

"New Graphical Methods for Examining Multivariate Data Sets with Computer Workstations," Invited colloquium lecture, Dept. of Mathematics and Statistics, Stephen F. Austin University, Nacogdoches, TX, October 22, 1984; Research seminar, IMSL, Inc., Houston, TX, November 16, 1984.

"Graphical Methods for Examining Multiple Channel Image Data," Houston Digital Imaging Series, Engineering, U. of Houston, October 4, 1984.

"A New Look at Raw 4-D Landsat Data," ASA Annual Meeting, Philadelphia, August 13-16, 1984.

"New Graphical Techniques for Analyzing Large Multivariable Medical Data Sets," colloquium, U. Houston Clear Lake City, July 25, 1984.

"Nonparametric Analysis of Minnesota Spruce and Aspen Tree Data and Landsat Data," (with R. Jee), Symposium on Mathematical Pattern Recognition and Image Analysis, NASA/JCS, Houston, June 6-8, 1984.

"Another Look at Fisher's Iris Data Using 4-D Density Estimation," invited talk, SREB Summer Research Conference in Statistics, DeGray Lodge, Arkansas, June 10-15, 1984.

"Multivariate Density Function Representation," invited talk, National Computer Graphics '84, Anaheim, California, May 15, 1984.

"Nonparametric Density Estimation for Three and Four Dimensional Data Analysis and Computer Graphical Representation" and "Introduction to Practical Nonparametric Density Estimation in One and Two Dimensions," colloquia, presented to the Departments of Mathematics and Geography, respectively, University of California at Santa Barbara, March 7-8, 1984.

SREB representative, Gainesville, Florida, October, 1983.

"Density Estimation in Three and Four Dimensions and Applications in Data Analysis, Remote Sensing, Image Processing, and Oceanography," ONR, Research Seminar, Oceanography Site Visit, Texas A&M University, September 26, 1983; Annual Meeting American Statistical Association, Toronto, August 18, 1983; NASA Symposium on MPRIA: Mathematical Pattern Recognition and Image Analysis, JSC, June 1-3, 1983; ONR Statistical Image Processing and Graphics Workshop, Luray, Virginia, May 25-27, 1983; ARO, Aberdeen Proving Grounds, May 24, 1983; 15th Interface of Computer Science and Statistics, Houston, March 17-18, 1983;

"Nonparametric Probability Density Estimation as a Tool for Data Analysis," invited talk, Twenty-Eighth Conference on the Design of Experiments in Army Research Development and Testing, Monterey, CA, October 20-22, 1982. Also presented at the Johnson Space Center research seminar, November 5, 1982 and at the Mathematical Sciences colloquium, Rice University, October 18, 1982.

"Optimal Meshes for Histograms Using Variable-Width Bins," poster session, ASA Annual Meeting, Cincinnati, Ohio, August 16-19, 1982.

Computer Science and Statistics: 14th Symposium on the Interface, RPI, Troy, NY, July 6-7, 1982.

"Some Computational Problems in Density Estimation," invited talk, Biometrics ENAR meeting, San Antonio, TX, March 14-17, 1982.

"Review of Some Results in Bivariate Density Estimation," invited talk, NASA Workshop on Density Estimation and Function Smoothing, Texas A&M University, College Station, TX, March 11-13, 1982.

Conference on Scientific Inference, Data Analysis, and Robustness, University of Wisconsin, Madison, November 4-6, 1981.

"Frequency Polygons and the Quantile Function," NSF conference on Quantile Processes, Texas A&M University, College Station, TX, July 8, 1981.

SREB Summer Conference, DeGray Lodge, Arkansas, June, 1981.

"Nonparametric Density Estimation Theory and Applications in Medicine," invited colloquium lecture, Dept. of Mathematics and Statistics, Stephen F. Austin University, Nacogdoches, TX, March 23, 1981.

"Using Computer-Binned Data for Density Estimation," poster session, Computer Science and Statistics: 13th Symposium on the Interface, Pittsburgh, PA, March 12-13, 1981.

"Relaxing Model Assumptions in Medical Data Analysis Using Nonparametric Density Estimation," invited colloquium lecture, Department of Preventive Medicine, Medical College of Wisconsin, Milwaukee, WI, December 9, 1980.

ASA Annual Convention, Houston, TX, August, 1980.

"Applications of Nonparametric Density Estimation to Medical Data," invited talk, Southeast Texas Chapter, ASA, Institute of Statistics, Texas A&M University, College Station, TX, February 28, 1980.

"Analysis of Risk Factors Using Nonparametric Density Estimation," invited talk, Department of Biostatistics, University of North Carolina, Chapel Hill, NC, October 17, 1979.

"Comment on the Invited Paper by I.J. Good and R.A. Gaskins," ASA Annual Meeting, Washington, D.C., invited discussant with E. Parzen, W. Eddy, and M. Tarter, Washington, D.C., August 14, 1979.

"Patterns of Risk Factors and the Severity of Coronary Artery Disease," Cardiovascular Center, Baylor College of Medicine, Houston, TX, December 28, 1978.

"Multivariate Density Estimation by Discrete Maximum Penalized Likelihood Methods," Naval

Postgraduate School, Monterey, CA, February 23-25, 1978.

"Statistical Capabilities of the IMSL Library," ASA Annual Meeting, Round Table Luncheon, San Diego, CA, August 15, 1978.

"A Model of Ambulance Response Time," Cardiovascular Center, Baylor College of Medicine, Houston, TX, January 9, 1978; Colloquium, UTSPH, Jan. 24, 1978; Colloquium, Rice University, December 5, 1977; Masc 300, Model Building, Rice University, Oct 11, 1977, Nov 6, 1979, Jan, 1982.

"New Frontiers in Nonparametric Density Estimation," M.D. Anderson Hospital and Tumor Institute, Department of Biostatistics, April 28, 1977; Vanderbilt University, Spring, 1976.

"Statistics for reading Medical Journals" and "Statistical Thinking and Testing," Department of Anesthesiology Didactic Lectures, Baylor College of Medicine, March 14, 1977 and October 11, 1978; Department of Pediatric Cardiology, Texas Children's Hospital and St. Lukes Hospital, November 30 and December 7, 1978.


COURSES ORIGINATED AT RICE

Stat 550  "Nonparametric Functional Estimation"
Stat 640  "Data Mining and Statistical Learning"
Stat 682  "Clustering and Discrimination"
Masc 686  "Nonparametric Biometric Models for Risk Assessment"
Masc 687  "Statistical Computing and Simulation"


COURSES TAUGHT

STAT 310      - Fall 2011, Spring 92,93, Fall 94, Spring 01, 02, 03, 04 "Introduction to Probability and Statistics"

STAT 331      - Fall 98 "Applied Probability"

STAT 410      - Fall 05, Spring 92,93,95,96,97,99 "Statistical Computing and Regression"

STAT 419/519 - Spring 16, "Statistical Inference"

STAT 481      - Fall 87-89, "Mathematical Statistics I"

STAT 482      - Spring 88-90, "Mathematical Statistics II"

STAT 487      - Spring 90, "Multivariate Analysis"

STAT 498      - Fall 09, "VIGRE Data Mining" (with Steve Cox and Bob Hardt)

STAT 499      - Spring 10, "VIGRE Wavelet Thresholding" (with Alena Oetting)

STAT 541      - Spring 01, 05, 10  Fall 08, 10, 11, 12, 13, 16 "Multivariate Analysis"

STAT 550      - Spring 96, Fall 01, 03, Spring 06, Fall 07, Fall 09, Spring 11, 13, Fall 15 "Nonparametric Functional Estimation"

STAT 589      - Spring 89,91 "Nonparametric Functional Estimation"

STAT 600      - Spring 04, 05, 06, 07, 09, 10, 11, 12, 13, 14 "Graduate Seminar in Statistics" (with R. Riedi 04)

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| STAT 640 | - Fall 02, 04  Spring 09 "Data Mining and Statistical Learning" |
| STAT 682 | - Spring 95, Fall 96 "Clustering and Discrimination" |
| STAT 682 | - Fall 97 "Nonparametric Functional Estimation" |
| STAT 682 | - Fall 99 "Pattern Recognition and Cluster Analysis" |
| STAT 686 | - Spring 88, "Statistical Computing and Simulation" |
| MASC 280 | - Fall 79, "Probability and Statistics for Social Scientists" |
| MASC 300 | - Spring 82-85, "Model Building" |
| MASC 382 | - Fall 80-84, 86, Spring 87 "Introduction to Probability and Statistics" |
| MASC 476 | - Spring 80 and 81, "Stochastic Operations Research" |
| MASC 480 | - Spring 76, 77, 78, 79 and 82, "Introduction to Statistical Methods" |
| MASC 481 | - Fall 77, "Mathematical Statistics" |
| MASC 587 | - Spring 84, "Time Series Analysis" |
| MASC 588 | - Spring 87, "Nonparametric Density Estimation" |
| MASC 589 | - Fall 84, "Nonparametric Density Estimation" |
| MASC 686 | - Fall 79, "Nonparametric Methods in Risk Analysis" |
| MASC 687 | - Spring 81, "Statistical Computing and Simulation" |
| STAT 300 | - Summer 85, "Nonparametric Density Estimation," Dept. Statistics, Stanford |