

Resume of Edward Wegman

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EDUCATION:

- Epiphany of Our Lord Grammar School and William Cullen McBride High School (Both St. Louis, MO)
- 1961 Entered St. Louis University with 4-year full tuition scholarship.
- 1965 Graduated B.S. in mathematics with honors. Entered the University of Iowa, Department of Statistics with NDEA Fellowship
- 1967 Awarded M.S. in mathematical statistics
- 1968 Awarded Ph.D. for dissertation, On Estimating a Unimodal Density under the direction of Professor Tim Robertson

SOCIETY MEMBERSHIPS

American Statistical Association (Fellow)
Institute of Mathematical Statistics (Fellow)
Royal Statistical Society (Fellow)
American Association for the Advancement of Science (Fellow)
Washington Academy of Science (Fellow)
International Statistical Institute (Elected Member)
Research Society on Alcoholism (Elected Member)
Institute of Electrical and Electronic Engineers (Senior Member)
Mathematical Association of America
Society of Industrial and Applied Mathematics
American Mathematical Society
American Geophysical Union
Sigma Xi Research Society
Interface

CONTRACTS

Research Associate with Professor George Nicholson on both AFOSR and NSF Grants, 1969, 1970
Research Associate with Professor R. C. Bose on NSF Grant GP-23520, 1971, 1972
Research Associate with Professors W. L. Smith and M. R. Leadbetter on ONR contract, 1973, 1974
Principal Investigator on AFOSR contract, 1975-1977, 1987-1989, 2001-2005
Senior Faculty Fellow Award from NSF, 1976
Principal Investigator on ARO contract, 1987-2008

Principal Investigator on ARL contract, 2006-2007
Principal Investigator on NSF grant, 1987-1993, 1996-2001
Principal Investigator on a Virginia CIT contract, 1987-1990
Principal Investigator on an IBM equipment grant, 1987
Principal Investigator on an Apple Computer, Inc. equipment grant, 1987
Principal Investigator on DoD Instrumentation grant, 1988, 1989, 1992, 1993
Principal Investigator on ONR contract, 1989-1995, 1999-2002
Principal Investigator on NSF SCREMS grant, 1988, 1990, 1993, 1999
Principal Investigator on NIH/NIAAA grant, 2006-2009
Co-Investigator on DARPA contract, 1999-2005
Navy-ASEE Distinguished Faculty Fellow Award from ONR, 1996, 1997, 2008
NSF/ASA/BLS Senior Faculty Fellow, 2000

AWARDS AND HONORS

Elected Fellow of the Royal Statistical Society, 1977
Elected Fellow of the American Statistical Association, 1979
Elected Fellow of the Institute for Mathematical Statistics, 1981
Elected Senior Member of the Institute of Electrical and Electronic Engineers, 1979
Elected Member of the International Statistical Institute, 1983
Selected by the Washington Academy of Science as the 1983 Outstanding Mathematician in the Washington, DC area and elected Honorary Fellow, 1983
Elected Fellow of the American Association for the Advancement of Science, 1985
Awarded the U. S. Navy Meritorious Civilian Service Medal, 1981
Awarded the U. S. Navy Merit Pay Performance Award, 1981
Awarded the U. S. Navy Merit Pay Performance Award, 1982
Awarded the U. S. Navy Special Achievement Award, 1983
Promoted to the U. S. Senior Executive Service, 1983
Awarded the U. S. Navy Senior Executive Bonus Award, 1984
Selected as the first Bernard J. Dunn Professor of Information Technology and Applied Statistics, George Mason University, 1986
Elected President-elect of the Washington Statistical Society, 1989, President, 1990
Elected Vice-president of the Intel Supercomputer User's Group, 1990
Awarded the George Mason University Distinguished Faculty Award, 1990
Elected Chairman of the Board, Interface, 1997-2000
Elected President-elect, International Association for Statistical Computing, 1995-1997, President, 1997-1999, Past President, 1999-2001
Awarded the GMU-IT&E Outstanding Research Award for 1999 (First Recipient)
Elected Chair, Statistical Graphics Section of the American Statistical Association, 2000
Awarded the Army Wilks Medal for Distinguished Research Contributions, 1999
Awarded the American Statistical Association 2002 Founder's Award, 2002
Awarded the University of Iowa Distinguished Alumni Achievement Award, 2004
Appointed Chair of the Committee on Applied and Theoretical Statistics, National Academy of Science, 2004
Appointed Member (Ex Officio) of the Board of Mathematical Sciences and their Applications, National Academy of Sciences, 2004
Elected Chair of Section U of the American Association for the Advancement of Science, 2005
Elected Council of Sections Representative of the Statistical Graphics Section of ASA, 2005
Selected as National Affiliate, National Academy of Science, 2005
Elected to the Board of Directors, American Statistical Association, 2006
Elected Program Chair-elect, Statistical Computing Section, ASA, 2006
Visiting Fellow, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, Cambridge, UK, 2008

EMPLOYMENT

- Assistant Professor, University of North Carolina, Department of Statistics, 1968-1973
- Associate Professor, University of North Carolina, Department of Statistics, 1973-1978
- Visiting Professor, University of Manchester (England), Department of Mathematics (on leave from the University of North Carolina), 1976-1977
- Director, Statistics and Probability Program, Office of Naval Research, 1978-1983
- Head, Mathematical Sciences Division, Office of Naval Research, 1982-1986
- Professor and Director, Center for Computational Statistics, George Mason University, 1986- 2006
- Founding Chairman, Department of Applied and Engineering Statistics, George Mason University, 1992-1999
- Chairman, Data Sciences Program, School of Computational Sciences, George Mason University, 2004-2006
- Professor and Director, Center for Computational Data Sciences, George Mason University, 2008-

RESEARCH INTERESTS

- Statistical Graphics and Scientific Visualization
- Computational Statistics
- Time Series Analysis
- Function and Curve Estimation including Splines
- Inference under Order Restrictions
- Parallel Computing
- Massive Data Sets, Streaming Data, and Data Mining
- Modeling Alcohol Use Behavior
- Text Mining
- Social Networks
- Statistical Methods for Computer Intrusion Detection
- Paleoclimate Reconstruction

PROFESSIONAL ACTIVITIES

CONSULTING ACTIVITIES

- Naval Coastal Systems Laboratory, Panama City, FL: data analysis of high frequency sonar data, 1973, 1974
- North Carolina State Utilities Commission, Raleigh, NC: design and analysis of survey to assess the impact of a proposed Duke Power rate hike on low income customers, 1974
- Governor James Hunt, Raleigh NC: assessment and analysis of a controversial report published by the North Carolina State Department of Public Instruction concerning the effect of state-supported kindergarten on third grade performance, 1975
- American Rose Society, Shreveport, LA: design and analysis of a national survey to rate rose cultivars, 1975
- North Carolina State Department of Public Instruction, Raleigh, NC: design, stratification and selection of a sample to assess performance of pupils statewide, 1976, 1977
- Executive Office of Management and Budget (under Presidents Carter and Reagan), Washington, DC: review of sampling procedures for reporting faculty workload under OMB Circular A-21, 1980, 1981
- Department of Statistics, Ohio State University, Columbus, OH: teaching of statistics for industrial and government service, 1981-1985

- Strategic Defense Initiative Organization, Innovative Science and Technology Office, Washington, DC: development of the ultra high speed computing research program, 1985-1986
- J. S. Lee and Associates, Inc., Arlington, VA: multidimensional data analysis methods in communication theory, 1986
- Farkas and Manelli, PLLC, Washington, DC: expert witness in discrimination case against Howard University, 1997
- National Academy of Science/National Research Council, Washington, DC. Member of the Panel on Lethality and Vulnerability of the Technical Advisory Board to the Army Research Laboratory, 1996-2001
- National Academy of Science/National Research Council, Washington, DC. Member of the Committee on Theatre Missile Defense of the Naval Studies Board, 2000
- American Beverage Council, Inc., Washington, DC: analysis of reports on the effect of blood alcohol levels in range .08 to .10 on the risk of fatalities in automobile accidents, 2000-2001
- Bureau of Labor Statistics, Washington, DC: data mining of scanner data to be incorporated in the consumer price index (CPI), 2000-2001
- AlgoTek, Inc., Arlington, VA: automated serendipity, part of DARPA's total information awareness (TIA) program, 2003-2004
- Member, Board of Mathematical Sciences and its Application, National Academy of Science, 2004 (Term 2003-2009)
- Chair, Committee on Applied and Theoretical Statistics, National Academy of Science, 2004 (Term 2003-2007)
- Chair, Section U, American Association for the Advancement of Science, 2004-2006
- U.S. Congress, House Committee on Energy and Commerce and House Subcommittee on Oversight and Investigations, 2005-2006

MEETINGS OR SESSIONS ORGANIZED

- One of three principal organizers of the NSF-sponsored Regional Conference on Multiple Time Series and Systems Identification, January 2-6, 1973, Chapel Hill, NC Principal Speaker: E. Parzen
- Co-organized Workshop on the Design and Analysis of Statistical Experiments in Weather Modification, October, 1978, Tallahassee, FL with D. DePriest and R. Bradley
- Co-organized Workshop on Robustness in Sonar Systems, November, 1978, Panama City, FL with Carl Bennett
- Co-organized Workshop on Processes in Marine Remote Sensing, June, 1979, Manchester, England with F. P. Diemer
- Co-organized IMS Special Topics Meeting on Splines and Approximations, October 1979, Boulder, CO with Grace Wahba
- Member of Organizing and Editorial Committees of the International Meeting on Statistics in Tokyo (Statistical Methods and Data Analysis), November, 1979, Tokyo, Japan
- Co-organized ONR-ARO Joint Workshop on Reliability in the Acquisitions Process, April, 1981, Washington, DC with D. DePriest and R. Launer
- Member of the Executive Committee, 15th International Symposium on Remote Sensing, May, 1981, Ann Arbor, MI
- Co-organized Workshop on Two-Dimensional Signal and Image Processing in Anti-Submarine Warfare, May, 1981, Woods Hole, MA with Theo Kooij and Art Bisson
- Organized Workshop on Signal Processing in the Ocean Environment, May, 1982, Annapolis, MD
- Organized Workshop on Statistical Image Processing and Graphics, May, 1983, Luray, VA
- Member of the Organizing Committee of the Second International Meeting on Statistical Climatology, October, 1983, Lisbon, Portugal

- Organized AAAS Symposium on Journeys into Higher Dimensions: Graphics in Mathematics, Statistics and Perception, May, 1984, New York, NY
- Organized AAAS Symposium on Brains, Learning and Memory, May, 1984, New York, NY
- Program Chairman, Institute of Mathematical Statistics Annual Meeting, August, 1986, Chicago, IL
- Co-organized AAAS Symposium on Imprecision and Expert Systems, February, 1987, Chicago, IL with N. Singpurwalla
- Organizer and Program Chairman of the joint ARO-GMU Workshop on Computational Statistics, June, 1987, Fairfax, VA
- Program Chairman, 1988 Interface Symposium: Computing Science and Statistics, April, 1988, Washington, DC
- Co-organized, Workshop on New Directions in Statistics, November, 1990, Arlington, VA with Julia Abrahams
- Member, Program Committee, Interface Symposium: Computing Science and Statistics, 1989, 1991, 1992, 1993, 1994, 1996, 2000, 2001, 2002, 2004, 2006, 2008
- Member, Steering Committee, Army Conference on Applied Statistics, 2000-2008
- Scientific Program Chair, Second World Congress of the IASC, February, 1997, Pasadena, CA
- Program Chair for Statistical Graphics, Joint Statistical Meetings, August, 1998, Dallas, TX
- Program Chair, Interface 2002, Montreal, Quebec, Canada with Amy Braverman
- Member, Scientific Program Committee, COMPSTAT 2008

EDITORIAL

- Member of the Committee for Statistical Tables for the Institute of Mathematical Statistics, 1970-1976
- Member of the Editorial Board of *Communications in Statistics*, 1975-1987
- Member of the Editorial Board of *Statistics and Probability Letters*, 1981-1987
- Member of the Editorial Advisory Board of *Naval Research Logistics Quarterly*, 1982-2003
- Coordinating Editor of the *Journal of Statistical Planning and Inference*, 1983-2003
- Associate Editor of the *Journal of the American Statistical Association*, 1986-1988
- Associate Editor of *Computational Statistics and Data Analysis*, 1986-present
- Associate Editor of the *Journal of Nonparametric Statistics*, 1988-2003
- Associate Editor of the *International Statistical Review*, 1999-2004
- Editor (Theory and Methods) of the *Journal of the American Statistical Association*, 1990-1994

COMMITTEE ASSIGNMENTS

- Member of the Membership Committee of the American Statistical Association, 1975-1978
- Associate Program Secretary for the Institute of Mathematical Statistics, 1975-1984
- Institutional Representative of the American Statistical Association to the American Association for the Advancement of Science, 1981-1984
- Member of the Editorial Selection Committee for *The American Statistician*, 1982-1983
- Section Secretary of AAAS Section U, 1983-1987
- Member of the ASA Committee for Quality and Productivity, 1984-1986
- Speech Writer for RADM J. Mooney, Chief of Naval Research, Special Invited Lecture, American Mathematical Society, January, 1985
- Chairman of the Search Committee for the 1989 Editor for the ASA 150 Publication, 1986-1987

- Member of the IMS Committee on the Selection of Administrative Officers, 1987-1989, Chairman, 1988-1989
- Member of User's Group Advisory Committee for INTEL, 1987-1990
- President-elect of the Washington Statistical Society, 1989, President, 1990-1991
- Vice-president of the Intel Supercomputer User's Group, 1990
- President of the Interface Foundation of North America, 1987-1993
- Treasurer of the Interface Foundation of North America, 1987-1996, 1999-present
- Chairman of the Board of the Interface Foundation of North America, 1998-2001
- Member of ASA Committee on Publications, 1991-1994, 2000-present
- President-elect of the International Association for Statistical Computing, 1995-1997, President, 1997-1999
- Representative of the Institute for Mathematical Statistics to Conference Board of Mathematical Sciences, 1996-1999
- Program Chair of the Statistical Graphics Section of ASA, 1998
- Chair of the Statistical Graphics Section of ASA, 2000
- Member of the Journal of Computational and Graphical Statistics Management Committee (ASA Rep.) 1995-2004, Chair 2001-2004
- Program Chair of the Statistical Computing Section, 2007
- Member, Board of Directors, American Statistical Association, 2006-2008
- Chair, Committee on Publications, American Statistical Association, 2007-2008

INVITED PAPERS

1. "Nonparametric probability density estimation," IMS Central Regional Meetings, Dallas, TX, April, 1970
2. "Some thoughts on computers and undergraduate statistics," Second International Congress on Mathematical Education, Exeter, England, August, 1972
3. "Some results on automata in random environments," International Symposium on Information Theory, Patras, Greece, August, 1976
4. "An automaton modeled in an environment," First International Conference on Mathematical Modeling, St. Louis, MO, August, 1977
5. "Splines and related functional estimators," Washington Statistical Society, Washington, DC, November, 1978
6. "Time series, sonars and space probes," Washington Statistical Society, Washington, DC, June, 1979
7. "Time series and remote sensing," Processes in Marine Remote Sensing Workshop, Manchester, England, June, 1979
8. "Isotonic splines," IMS Special Topics Meeting on Splines and Approximations, Boulder, CO, October, 1979
9. "Two approaches to nonparametric regression: splines and isotonic inference," International Conference on Statistics in Japan, Tokyo, Japan, November, 1979
10. "On computer architectures for statistical algorithms," Conference on Applications of Numerical Analysis and Special Functions in Statistics, College Park, MD, October, 1980
11. "Training statisticians for employment in industry and government, invited discussion," Conference on the Teaching of Statistics and Statistical Consulting, Columbus, OH, November, 1980
12. "Isotonic and related splines," Miniconference on Isotonic Regression, Iowa City, IA, April, 1981
13. "Data Fusion," Third International Conference on Statistical Decision Theory and Related Topics, West Lafayette, IN, June, 1981
14. "Maximum likelihood density estimation," Miniconference on Nonparametric Statistics, Lexington, KY, March, 1982
15. "Data fusion," Virginia Academy of Science Annual Meeting, Blacksburg, VA, April, 1982
16. "Spline estimation of spectral densities," Annual Meeting of the American Statistical Association, Cincinnati, OH, August, 1982

17. Invited Discussant at the ASA/Southern Regional Education Board Meeting, Arkadelphia, AR, June, 1984
18. "Higher dimensional data analysis," Keynote Talk, Symposium on Adaptive Inference in Honor of Robert V. Hogg's 60th Birthday, Iowa City, IA, October, 1984
19. Invited Discussant, ORSA Special Interest Conference on Statistical and Computational Problems in Probability Modeling, Williamsburg, VA, January, 1985
20. "Parallel coordinate representation of multivariate data," Washington Statistical Society, Washington, DC, March, 1985
21. "Ultra high speed computing," Software Valley, West Virginia, a Conference sponsored by (then) Senate Minority Leader Robert Byrd, Morgantown, WV, July, 1985
22. "Hyperdimensional data analysis using parallel coordinates," Washington Operations Research and Management Science Council, Washington, DC, January, 1986
23. "Representing multivariate meteorological data using parallel coordinates," Tenth AMS Conference on Weather Modification, Arlington, VA, May, 1986
24. "Hyperdimensional data analysis using parallel coordinates," Fourth International Conference on Statistical Decision Theory and Related Topics, West Lafayette, IN, June, 1986
25. "Hyperdimensional data analysis using parallel coordinates," AMS-IMS-SIAM 1986 Joint Research Conference on Large Scale Data Analysis via Computer Graphics, Santa Cruz, CA, July, 1986
26. "On randomness, determinism and computability," Conference on Assessing Uncertainty, Monterey, CA, November, 1986
27. "On randomness, determinism and computability," Washington Statistical Society, Washington, DC, January, 1987
28. "A Parallel coordinate approach to statistical graphics," NCGA Annual Conference and Exposition, Philadelphia, PA, March, 1987
29. "Computational statistics versus statistical computing," ARO-GMU Workshop on Computational Statistics, Fairfax, VA, June, 1987
30. "Impact of technology on statistics," Washington Statistical Society ASA Sesquicentennial Seminar, Washington, DC, September, 1988
31. "Parallel coordinate density plots," National Academy of Sciences/Board of Mathematical Sciences Chairman's Meeting, Washington, DC, October, 1988
32. "Parallel coordinate density plots," Army Design of Experiments Conference, Las Cruces, NM, October, 1988
33. "Parallel coordinate density plots," Computing Science and Statistics: 21st Symposium on the Interface, Orlando, FL, April, 1989
34. "Parallelizing multiple linear regression," Computing Science and Statistics: 21st Symposium on the Interface, Orlando, FL, April, 1989
35. "Parallel computing and statistics," (special sesquicentennial invited lecture) ASA Sesquicentennial Meeting, Washington, DC, August, 1989
36. "The grand tour in k-dimensions," Computing Science and Statistics: 22nd Symposium on the Interface, East Lansing, MI, May, 1990
37. "Visualization of high dimensional-structure using ridges," ASA Annual Meeting, Atlanta, GA, August, 1991
38. "Parallel computing in statistics" ISI Biennial Meeting, Cairo, Egypt, September, 1991
39. "Visualization of high dimensional structure using ridges," Keynote Talk at ASA Milwaukee Chapter Special Meeting on Statistical Graphics, Milwaukee, WI, September, 1991
40. "Visualization of high dimensional structure using ridges," Washington Statistical Society, Washington, DC, September, 1991
41. "The straight scoop on wavelets," Army Design of Experiments Conference, Vicksburg, MS, October, 1991
42. "Moments and wavelets in signal estimation," Conference on Moments and Signal Processing, Monterey, CA, September, 1992
43. "Three-dimensional Andrews plots and the grand tour," Computing Science and Statistics, 25th Symposium on the Interface, San Diego, CA, May, 1993

44. "History of the Interface since 1987: The corporate era," Computing Science and Statistics, 25th Symposium on the Interface, San Diego, CA, May, 1993
45. "Immersive methods for mine warfare," MASEVR '95: Second International Conference on the Military Applications of Synthetic Environments and Virtual Reality, Stockholm, Sweden, December, 1995
46. "High dimensional clustering using parallel coordinates and the grand tour," Conference of the German Classification Society, Freiburg, Germany, April, 1996
47. "Statistical software, siftware, and astronomy," Statistical Challenges in Modern Astronomy II, University Park, PA, June, 1996
48. "Geometric modeling of vehicle paths and confidence regions," Computing Science and Statistics, 28th Symposium on the Interface, Sydney, Australia, July, 1996
49. "High dimensional clustering using parallel coordinates and the grand tour," Computing Science and Statistics, 28th Symposium on the Interface, Sydney, Australia, July, 1996
50. "The impact of information technology on statistics," Information Technology Forum, University of Wisconsin, Milwaukee, WI, September, 1996
51. "Data mining and computational complexity," Massive Datasets Workshop, San Diego Supercomputer Center, San Diego, CA, March, 1997
52. "Visualization and pattern recognition in high dimensional spaces," DARPA ISO/ITO Workshop on ATR, Arlington, VA, April, 1997
53. "Visualizing and understanding data in high dimensions," The 1997 Chhotry Lal and Mohra Devi Rustagi Memorial Lecture, Ohio State University, Columbus, OH May, 1997
54. "Immersive methods for exploratory analysis," Computing Science and Statistics, 29th Symposium on the Interface, Houston, TX, May, 1997
55. "Short course: Scientific visualization and virtual reality," taught with Daniel B. Carr, 4th Army Conference on Applied Statistics, Fairfax, VA, October 20-21, 1997
56. "Data mining: How hard is it to find the gems," IMS Meeting, Pittsburgh, PA, March, 1998
57. "Virtual manipulatives on the internet: Mathematics education for all using dynamic visualization," National Council of Teachers of Mathematics, Washington, DC, April, 1998
58. "Data graphics for tactical decision making," Army After Next Tactical Decision Aids Technology Symposium, El Paso, TX, April, 1998
59. "Image grand tour," Automatic Target Recognition VIII, SPIE, Orlando, FL, April, 1998
60. "A penalty function method for simplifying adaptive mixtures estimates," Interface '98, Minneapolis, MN, May, 1998
61. "Statistical graphics in C^3 : Tactical decision aids," ONR Workshop on Statistics and Probability in C^3 , Arlington, VA, June, 1998
62. "MiniCAVE," AT&T Workshop on Data Visualization in Statistics, Morris, NJ, July, 1998
63. "Mining the sands of time," Joint Statistical Meetings/ASA Annual Conference, Dallas, TX, August, 1998
64. "Data visualization with parallel coordinates and the grand tour," 4th Iranian International Statistics Conference, Tehran, Iran, August, 1998
65. "Visions: New Techniques and Technologies in Statistics" Keynote Talk at NTTs '98, The International Seminar on New Techniques and Technologies in Statistics, Sorrento, Italy, November, 1998
66. "Geometric Methods in Statistics," Five lecture series at the University of Naples, Naples, Italy, November, 1998
67. Distinguished lecture series: Two lectures on data mining and visualization, Utah State University, Logan, UT, April, 1999
68. "Roundtable: New Graphics Environments," Joint Statistical Meetings, Baltimore, August, 1999
69. "Statistical Education at the Interface: Distance Learning/Computers in the Classroom," joint with J. Solka, Joint Statistical Meetings, Baltimore, August, 1999
70. "Data Mining and Visualization," International Statistical Institute, Helsinki, Finland, August, 1999
71. "Visual Data Mining," Keynote Talk at ACAS 99, The Army Conference on Applied Statistics, West Point, NY, October, 1999
72. "Assessing Vulnerability Measurements," INFORMS, Philadelphia, PA, November, 1999

73. Two Lectures, Troisieme Cycle de la Suisse Romande, Ecole Polytechnique Federale de Lausanne, Switzerland, December, 1999
74. "Visual Data Mining," Conference in Honor of the 80th Birthday of Professor C. R. Rao, Austin, TX, March, 2000
75. "Statistical Data Mining," Two-day Short Course Organized by the Washington Statistical Society, Washington, DC, April, 2000
76. "Data Reduction by Quantization," 5th World Congress of the Bernoulli Society and the Institute of Mathematical Statistics, Guanajuato, Mexico, May, 2000
77. "The MiniCAVE and Crystal Vision DataMining Software," Invited Technical Demonstration, Joint Statistical Meetings, Indianapolis, IN, August, 2000
78. "CrystalVision: A New Visual DataMining Software," Joint Statistical Meetings, Indianapolis, IN, August, 2000
79. "Visual Data Mining," Joint Statistical Meetings, Indianapolis, IN, August, 2000
80. "Multivariate Density Estimation: Adaptive Mixtures" and "Multivariate Density Estimation: Geometric Approaches," Workshop on Nonparametric Model Building, Splines and other Smoothing Techniques, State College, PA, October, 2000
81. "Visual Data Mining," Graduiertenkolleg "Angewandte Statistik," Herbstkolloquium, Dortmund, Germany, November, 2000
82. "Crystal Vision: A New Visual DataMining Software," Conference on Data Mining and Statistics, Augsburg, Germany, November, 2000
83. "Data Reduction by Quantization," Nonparametrics in Large, Multidimensional Data Mining Conference, Dallas, TX, January, 2001
84. "Visual Data Mining," 8th Biennial CDC/ATSDR Statistics Symposium, Atlanta, GA, January, 2001
85. Short Course on Statistical Data Mining, ENAR Meeting, Charlotte, NC, March, 2001
86. Five Lectures on Geometry, Visualization and Data Mining, University of Aalborg, Denmark, May, 2001
87. "Visual Data Mining," Keynote Talk, Danish Society of Theoretical Statistics, Aalborg, Denmark, May, 2001
88. "Visualizing Cereal World," DataViz II Workshop, Fairfax, VA, May, 2001
89. Short Course on Statistical Data Mining, Interface '01, Orange County, CA, June 2001
90. "Data Reduction by Quantization," Joint Statistical Meetings, Atlanta, GA, August, 2001
91. "Pixel Tours," IMA Workshop on Geophysics and Statistics, Minneapolis, MN, November, 2001
92. "Pixel Tours," American Geophysical Union Meeting, San Francisco, CA, December, 2001
93. "Collaborative Visualization Environments," (Best of JCGS Session), Interface 2002, Montreal, Quebec, Canada, April 2002
94. Six Lectures on Data Mining, Finnish Summer School in Probability, Lahti, Finland, June 2002
95. "Visual Data Mining," Keynote Talk, C. Warren Neel Conference on Statistical Data Mining & Knowledge Discovery, Knoxville, TN, June, 2002
96. "Smoothings, Ridges, and Bumps," Joint Statistical Meetings, New York, NY, August, 2002
97. "On Some Generalizations of Parallel Coordinate Plots," Seeing a Million – A Data Visualization Workshop, Rain am Lech (nr. Munich), Germany, October, 2002
98. "Visual Data Mining," Keynote Talk, M2002 SAS Data Mining Conference, Cary, NC, October 2002
99. Short Course on Statistical Data Mining, Army Conference on Applied Statistics, Raleigh, NC, October, 2002
100. "Visualization of Internet Packet Headers," NAS/NRC Workshop on Massive Streaming Data, Washington, DC, December, 2002
101. "Preparing Electronic Books," Interface 2003, Salt Lake City, UT, March 2003
102. "Evolutionary Graphics and Recursive Algorithms for Streaming Data," Keynote Talk, Conference on Applied Statistics in Ireland, Mullingar, Ireland, May, 2003

103. "Visualization of Internet Packet Headers for Intrusion Detection," Conference on Statistical Issues in Counterterrorism, Washington, DC, May, 2003
104. "Evolutionary Graphics for Streaming Data," JSM 2003, San Francisco, CA, August 2003
105. "Evolutionary Graphics and Recursive Algorithms for Streaming Data," Workshop on Statistical and Machine Learning Techniques for Computer Intrusion Detection, Fairfax, VA, September, 2003
106. "Visualization in Statistics," Keynote Talk, Spring Research Conference on Statistics in Industry & Technology, Gaithersburg, MD, May, 2004
107. "Visual Analytics for Streaming Internet Traffic," Interface 2004, Baltimore, MD, May 2004
108. "Computational and Mathematical Tools for Alcohol Ecology," Research Society on Alcoholism, Vancouver, BC, Canada, June 2004
109. "Recursive Bipartite Spectral Clustering for Document Categorization," Army Conference on Applied Statistics, Atlanta, GA, October, 2004
110. "Visual Data Mining of Streaming Data," Federal Committee on Statistical Methodology (FCSM Statistical Policy Seminar: Achieving Statistical Quality in a Diverse and Changing Environment, Bethesda, MD, December, 2004
111. "Cybersecurity on the Internet: Where the Homeland is the World," Public Lecture, International Conference on the Future of Statistical Theory, Practice and Education, Hyderabad, India, December 2004-January 2005
112. "Ecology of Alcohol and Alcoholism," International Conference on the Future of Statistical Theory, Practice and Education, Hyderabad, India, December 2004-January 2005
113. "The Development and Implications of Computational Statistics for Social Science, Health and Other Applications," Keynote Talk, Milestones in 21st Century Science, Buffalo, NY, March, 2005
114. "Strategies for Visual Data Mining," Keynote Talk, SIAM Data Mining Conference 2005, Orange County, California, April, 2005
115. "40 Years of Statistics Research: A Personal Perspective," 40 years of Statistical Computing and Beyond, Murray Hill, NJ, April, 2005
116. "Strategies for Visual Data Mining," Symposium on the Interface, St. Louis, MO, June, 2005
117. "Ecology of Alcohol and Alcoholism," with Y. Said, Symposium on the Interface, St. Louis, MO, June, 2005
118. "Modeling Alcohol Abuse and its Consequences," with Y. Said (presented by Y. Said, Symposium on the Interface, St. Louis, MO, June, 2005
119. "Visual Data Mining," Introductory Overview Lecture, Joint Statistical Meetings, Minneapolis, MN, August, 2005
120. "Automated Metadata," SAMSI Workshop on Homeland Defense and National Security, Research Triangle Park, NC, September, 2005
121. "Automated Metadata," Army Conference on Applied Statistics, Monterey, CA, October, 2005
122. "Automated Metadata for Text Mining," ASA/RAND Conference on Quantitative Methods & Statistical Applications in Defense, Santa Monica, CA, February, 2006
123. "Statistics, Data Mining, and Climate Change," Keynote Talk, Second NASA Datamining Workshop: Issues and Applications in Earth Science, Pasadena, CA, May, 2006
124. "Statistics, Data Mining, and Climate Change," Keynote Talk, Symposium on the Interface, Pasadena, CA, May, 2006
125. "Text Data Mining with Minimal Spanning Trees," Summer Research Conference on Statistics, Kerrville, TX, June, 2006
126. Testimony to House Committee on Energy and Commerce, U.S. House of Representatives, Washington, D.C., July 20 and 27, 2006,
http://republicans.energycommerce.house.gov/108/home/07142006_Wegman_fact_sheet.pdf http://republicans.energycommerce.house.gov/108/News/07142006_1990.htm
127. "The Kyoto Accord, The 2001 IPCC Third Assessment Report and The Academic Papers Underpinning Them," Joint Statistics Meeting, Seattle, WA, August, 2006
128. "Density Estimation from Streaming Data Using Wavelets," COMPSTAT 2006, Rome, Italy, August, 2006

129. "Geospatial Distribution of Alcohol-Related Violence in Northern Virginia," COMPSTAT 2006, Rome, Italy, August 2006
130. "On the Extraction of Endogenous Metadata for Text and Image Databases," Keynote Talk, The KNEMO Workshop, Anacapri, Capri, Italy, September 2006
131. "Computational Statistics – Graphical and Analytic Methods for Streaming Data," Short Course Lectures, Universita Napoli "Federico II", Naples, Italy, September, 2006
132. "The Hockey Stick Controversy: Lessons for Statisticians," Army Conference on Applied Statistics, Research Triangle Park, NC, October, 2006
133. "Visual Data Mining," Public Lecture, Distinguished Visiting Professor at the American University of Cairo, Cairo, Egypt, March, 2007
134. "Visualization of Streaming Data," Public Lecture, Distinguished Visiting Professor at the American University of Cairo, Cairo, Egypt, March, 2007
135. "Reanalysis of the Hockey Stick Paleoclimate Reconstruction," Public Lecture, Distinguished Visiting Professor at the American University of Cairo, Cairo, Egypt, March, 2007
136. "Extraction of Endogenous Metadata," Keynote Talk, Nineteenth Conference on Statistics and Modeling in Human and Social Science, Cairo, Egypt, March, 2007
137. "Assessing Interventions Related to the Negative Effects of Ethanol on HIV/AIDS Spread," 39th Symposium on the Interface of Computing and Statistics, Philadelphia, PA, May, 2007
138. "A Bipartite Graph Model of the Interaction between Alcohol Users and Institutions," Research Society on Alcoholism Annual Meeting, Chicago, IL, July, 2007
139. "Assessing Interventions Related to HIV Incidents Under the Influence of Ethanol," Joint Statistical Meetings, Salt Lake City, UT, August, 2007
140. "Text Mining for Fun and Profit," 3rd International Symposium on Business and Industrial Statistics, Ponta Delgada, Azores, Portugal, August, 2007
141. "20 Questions a Statistician Should Ask about Climate Change," ASA Workshop on Climate Change, NCAR, Boulder, CO, October, 2007
142. "Methods for Visualizing High Dimensional Data," Contemporary Frontiers in High Dimensional Statistical Analysis, Cambridge, UK, January, 2008
143. "Text Mining, Social Networks, and High Dimensional Analysis," Izzet Sahin Memorial Lecture, University of Wisconsin, Milwaukee, WI, April, 2008
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145. "Mixture Models for Document Clustering," Joint Statistical Meetings, Denver, CO, August, 2008
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149. "A Bipartite Graph Model of the Interaction between Alcohol Users and Institutions," NISS Workshop on Agent-Based Modeling, Research Triangle Park, NC, November, 2008
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PATENTS

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2. A Graph-Theoretic Policy Decision Tool for Exploring Interventions (Patent Pending)
3. A System for Adding Endogenous Metadata to Text and Image Databases (Patent Pending)

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PERSONAL INTERESTS

My personal interests extend to a number of areas including music and audio systems, photography, both black and white and color, and horticulture, particularly roses. I have exhibited roses and won a number of awards. My photographs have also received several awards and several have been published. I have sung bass with a choral group that has released several record albums of original music. I also play guitar, electric bass, dulcimer and autoharp.