

Vita

Mark E. Johnson

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Educational Background

B.A. 1973 University of Iowa, Mathematics (with Highest Honors, Phi Beta Kappa)
M.S. 1974 University of Iowa, Industrial and Management Engineering
Ph.D. 1976 University of Iowa, Industrial and Management Engineering

Employment History

Staff Member, Los Alamos National Laboratory, 1976-1988
Professor, Georgia Institute of Technology, 1988-1990
Professor and Chair, University of Central Florida, 1990-1996
Visiting Professor, University of Toulouse, May 1996
Visiting Scientist, National Hurricane Center, Fall 1996
Professor, University of Central Florida, 1997-present
Visiting Professor, Northwestern University, 2005-2006
US Lead Delegate to ISO TC69/SC1 1989-2009
Chair, ISO TC69/SC1 2010-present

Current Fields of Interest

Design of Experiments, Statistical Aspects of Hurricane Modeling and Forecasting,
Applied Statistics in Forensics and Medical Fraud, Sampling, Statistical Computing and
Graphics; International Statistical Standards (ISO TC69)

Published Books

Multivariate Statistical Simulation, in Wiley Series in Applied Probability and Statistics, John Wiley and Sons, Inc. (1987).

Simulated Annealing & Optimization: Modern Algorithms with VLSI Optimal Design, & Missile Defense Applications, American Sciences Press, (1988).

National & International Recognition

Jack Youden Prize, Best Expository Paper in Technometrics, 1981.

Thomas L. Saaty Prize, Best Applied Paper in American Journal of Management and Mathematical Sciences, 1984.

Shewell Award for Fall Technical Conference Presentation, 1985.

Fellow, American Statistical Association, 1988.

Thomas L. Saaty Prize, Best Applied Paper in American Journal of Management and Mathematical Sciences, 1989.

Brumbaugh Award, American Society for Quality Control, Paper that made the greatest contribution to the industrial applications of quality control, 1991.

Chartered Statistician, Royal Statistical Society, 1993.

Elected Member, International Statistical Institute, 1994.

Thomas L. Saaty Prize, Best Applied Paper in American Journal of Management and Mathematical Sciences, 1997.

Keynote Speaker, Quantitative Pharmacology Conference—"I Can Model, So Can You" Two-day Summit, Eli Lilly, Indianapolis, IN, September 30, 2008.

Luminary Speaker, Prognostics and Health Management Society, San Diego, CA, September 30, 2009.

Shin Research Excellence Award 2014, sponsored by The Geneva Association and the International Insurance Society, awarded June 2014, London (\$5000.00 prize). Joint with Randy Dumm and Charles C. Watson, Jr.

Shewell Award Winner for Fall Technical Conference in 2014, with C. Anderson-Cook and L.Lu.

Funding/Contracts

Experimental Design Support, Naval Air Development Center, Warminster, Pa. 1990, \$25,000.

Army Base Survey, Institute of Simulation and Training, Orlando, Fl, 1991-1992, \$15,000.

SCREMS Computer Grant, National Science Foundation, 1993-1995, \$40,000.

Beta Test Plan for Envoy, Motorola, 1994, \$10,000.

Design of Experiments Workshops for Coca-Cola Foods, Plymouth, FL, May - June 1993, \$5000.

Statistics in Biology Workshops for St. Johns River Water Management District, Palatka, FL, June-July 1993, \$7000.

Statistics in the Citrus Industry Workshops for Coca-Cola Foods, Plymouth, FL, April-May 1994, \$5000.

Pilot Study on Physiological and Health Measures, University of Central Florida, 1994, \$9000.

Left-Turn Safety Program, Florida Dept. of Transportation, 1994-1995, \$108,000.

Blue Cross/Blue Shield v. State of Florida, expert witness for the State, 1995, \$18,000.

Statistical Sampling in Auditing, Lockheed-Martin, Lakeland, 1995-1996, \$6000.

Professional Team Member, Florida Commission on Hurricane Loss Projection Methodology, 1996-present, \$500,000.

Return Times for Storm Surge for Hurricanes in the Caribbean, Caribbean Disaster Mitigation Project, Organization of American States, 1997, \$23,000.

Forecast Performance by the National Hurricane Center 1970-1996, International Hurricane Center, 1997, \$10,000.

Hazard Mitigation for Florida, Division of Community Affairs, State of Florida, 1998, \$652,000.

Statistical Expert, North Carolina Department of Insurance, 1998, \$3000.

Statistical Consulting for Watson Technical Consulting, 1998, \$7000.

Risk Analysis of Causeways Response to Hurricane Effects, Florida Dept. of Transportation, 2000,

\$7500.

Hazard Mitigation for Florida, Division of Community Affairs, State of Florida, 2000, \$57,000. Follow-up Project.

Kinetic Analysis Corporation, based on North Carolina Dept. of Insurance and Florida Division of Community Affairs, 2003, \$54,000.

NSF Grant, Water Through the Everglades, Joint with Computer Science, \$2.8 million, 2007-present, co-Principal Investigator.

Kinetic Analysis Corporation, ongoing research collaboration, 2007-present. I-4 Corridor Matching project, \$30,000.

Shook, Hardy and Bacon, Attorneys, 2008-present.

Kinetic Analysis Corporation, CCRIF consulting project, 2010, \$18,000.

Handwriting Analysis Grant, National Institute of Justice, 2011, \$496,000.

Assessment of the Viability of a Southeastern Hurricane Risk Insurance Plan, Florida State University, Florida Catastrophic Storm Risk Center, 2012, \$57,000.

Published Journal Articles (70 refereed)

Johnson, M. E. and Tietjen, G., "Exact Statistical Tolerance Limits for Sample Variances," Technometrics, Vol. 21, pp. 107-110 (1979).

Johnson, M. E. and Lowe, V. W., "Bounds on the Sample Skewness and Kurtosis," Technometrics, Vol. 21, pp. 377-378 (1979).

Johnson, M. E. "Computer Generation of the Exponential Power Distribution" Journal of Statistical Computation and Simulation, Vol. 9, pp. 239-240 (1979).

Johnson, M. E., Monash, E. and Waterman, M. S., "Modeling and Optimizing a Gas-Water Reservoir: Enhanced Recovery with Waterflooding," Mathematical Geology, Vol. 11, pp. 63-74 (1979).

Johnson, M. E., Tietjen, G. and Beckman, R. J., "A New Family of Probability Distributions with Applications to Monte Carlo Studies," Journal of the American Statistical Association, Vol. 75 pp. 276-279 (1980).

Johnson, M. E. and Tenenbein, A., "Bivariate Distributions with Specified Margins and Fixed Measures of Dependence," Journal of the American Statistical Association, Vol. 76, pp. 198-201 (1981).

Johnson, M. E. and Cook, R. D., "A Family of Distributions for Modeling Non-elliptically Symmetric Multivariate Data," Journal of the Royal Statistical Society, Series B, Vol. 43, No. 2, pp. 210-218 (1981).

Johnson, M. E. and Beckman, R. J., "A Ranking Procedure for Partial Discriminant Analysis," Journal of the American Statistical Association, Vol. 76, pp. 671-675 (1981).

Johnson, M. E., Conover, W. J. and Johnson, M. M., "A Comparative Study of Tests for Homogeneity of Variances, With Applications to the Outer Continental Shelf Bidding Data," Technometrics, Vol. 23, pp. 351-261 (1981). This paper received the 1981 Jack Youden prize for best expository paper in Technometrics.

Johnson, M. E. and Bryson, M. C., "The Incidence of Monotone Likelihood in the Cox Model," Technometrics, Vol. 23, pp. 381-383 (1981).

Johnson, M. E. and Tadikamalla, P., "Complete Guide to Gamma Variate Generation," American Journal of Mathematical and Management Sciences, pp. 213-236 (1981).

Johnson, M. E. et al., "Discriminant Analysis Applied to Aerial Radiometric Data and Its Application to Uranium Favorability in South Texas," Mathematical Geology, Vol. 13, pp.535-568 (1981).

Johnson, M. E., Ramberg, J. S. and Wang, C., "The Johnson Translation System in Monte Carlo Studies," Communications in Statistics - Computation and Simulation, pp. 521-525 (1982).

Johnson, M. E. and Bryson, M. C., "Constructing and Simulating Multivariate Distributions Using Khintchine's Theorem," Journal of Statistical Computation and Simulation, Vol. 16, pp. 129-137 (1982).

Johnson, M. E., Tolley, H. D., Bryson, M. C. and Goldman, A. S., "Covariate Analysis of Survival Data: A Small-Sample Study of Cox's Model," Biometrics, Vol. 38, pp. 685-698 (1982).

Johnson, M. E., Crowe, B. and Beckman, R. J., "Calculation of the Probability of Volcanic Disruption of a High-level Radioactive Waste Repository Within Southern Nevada, USA," Radioactive Waste Management and the Nuclear Fuel Cycle, Vol. 3, pp. 167-190 (1982).

Johnson, M. E., "Computer Generation of the Generalized Eyraud Distribution," Journal of Statistical Computation and Simulation, Vol. 15, pp. 333-335 (1982).

Johnson, M. E. and Nachtsheim, C. J., "Some Guidelines for Constructing Exact D-Optimal Designs on Convex Design Spaces," Technometrics, Vol. 25, pp. 271-277 (1983).

Johnson, M. E., Wang, C. and Ramberg, J. S., "Generation of Continuous Multivariate Distributions for Statistical Application," American Journal of Mathematical and Management

Sciences, Vol. 4, pp. 225-248 (1984).

Johnson, M. E. and Brooks, D. G., "Solution to Unsolved Problem: Can We Generate A Bivariate Poisson Distribution With a Negative Correlation?" American Mathematical Monthly, Vol. 92, p. 721 (1985).

Johnson, M. E. and Cook, R. D., "Generalized Burr-Pareto-Logistic Distributions With Applications to a Uranium Exploration Data Set," Technometrics, Vol. 28, pp. 123-131 (1986).

Johnson, M. E. and Martz, H. F., "Risk Analysis of Terrorist Attacks," Risk Analysis: An International Journal, Vol. 7, pp. 35-47 (1987).

Johnson, M. E., Bohachevsky, I. O. and Stein, M. L., "Generalized Simulated Annealing for Function Optimization," Technometrics, Vol. 28, pp. 209-217 (1987).

Johnson, M. E., "Tests Based on Empirical Probability Measures," Encyclopedia of Statistical Sciences, Johnson, N. L. and Kotz, S., eds., (1987).

Johnson, M. E. and Beckman, R. J., "Fitting Student's t Distribution to Grouped Data, With Application to a Particle Scattering Experiment," Technometrics, Vol. 29, pp. 17-22 (1987).

Johnson, M. E. and Nachtsheim, C., "A New Family of Multivariate Distributions with Application to Monte Carlo Studies," Journal of the American Statistical Association, Vol. 83, pp. 984-989 (1988).

Johnson, M. E., Bohachevsky, I. and Stein, M., "Ballistic Missile Defense and Simulated Annealing," American Journal of Mathematical and Management Sciences, Vol. 8, pp. 361-388 (1988).

Johnson, M. E., Ylvisaker, D. and Moore, L., "Minimax and Maximin Distance Designs," J. of Statistical Planning and Inference, Vol. 26, pp 131-148 (1990)

Johnson, M. E. and Pederson, S., "Estimating Model Discrepancy," Technometrics, Vol. 32, pp. 305-314 (1990).

Johnson, M. E., Discussion of "Determining Chemical Characteristics of Plutonium Solutions using Visible Spectrometry and Multivariate Chemometric Methods," by W. P. Carey and L. E. Wangen, Chemometrics and Intelligent Laboratory Systems, Vol. 10, p. 259 (1991).

Johnson, M. E., "Multivariate Distributions in Statistical Simulation Studies: Guidelines and Another Competitor," The Frontiers of Statistical Computation, Simulation and Modelling, P. R. Nelson, ed., pp. 57-76 (1991).

Johnson, M. E., Easterling, R. G., Bement, T. R. and Nachtsheim, C. J., "Statistical Tolerancing Based on Consumer's Risk Considerations," J. of Quality Technology, Vol. 23, pp. 1-11 (1991).

Johnson, M. E. "Some Modelling and Simulation Issues Related to Bootstrapping," Bootstrapping and Related Techniques, K.-H. Jöckel, G. Rothe, and W. Sendler, eds., pp. 227-232 (1992).

Johnson, M. E., Bohachevsky, I. O. and M. L. Stein, "Stochastic Optimization and the Gambler's Ruin Problem," Journal of Computational and Graphical Statistics, Vol 1., 367-384 (1992).

Johnson, M. E. and Mollaghasemi, M., "Simulation Input Data Modeling," Annals of Operations Research, Vol. 53, pp. 47-75 (1994).

Johnson, M. E., John, P. W. M., Moore, L. M., and Ylvisaker, D., "Minimax Distance Designs in Two-level Factorial Experiments," J. of Statistical Planning and Inference, Vol. 44, pp. 249-263 (1995).

Johnson, M. E., and Parsons, R., "DNA Sequence Assembly and Genetic Algorithms: New Results and Puzzling Insights," The Third International Conference on Intelligent Systems for Molecular Biology, Cambridge, England, to appear (1995).

Johnson, M. E., Bohachevsky, I. O., and Stein, M. L., "Generalized Simulated Annealing with Applications to Chemistry," invited introductory chapter to Simulated Annealing Adapted to Chemistry, J. Kalivas, ed., pp. 3-24 (1995).

Johnson, M. E. et al., ADiversité Démographique Dans Les Communes de Midi-Pyrénées, INSEE publication, Paris, (1996).

Johnson, M. E., and Parsons, R., "A Case Study in Experimental Design Applied to Genetic Algorithms with Applications to DNA Sequence Assembly," American Journal of Mathematical and Management Sciences, (1997).

Johnson, M. E., Boulanger, M., Perruchet, C., and Thyregod, P., "Evolution of International Statistical Standards via Life Cycle of Products and Services," International Statistical Review, Vol. 67, pp. 151-171, (1999).

Johnson, M. E. and Watson, C. C., Jr., "Hurricane Return Period Estimation," Tenth Symposium on Global Change Studies, American Meteorological Society, pp. 478-479, (1999).

Johnson, M. E., Iman, R. L., and Schroeder, T. A., "Assessing Hurricane Effects: Part 1 – Sensitivity Analysis," Reliability Engineering and System Safety, Vol. 78, pp. 36-50, (2002).

Johnson, M. E., Iman, R. L., and Schroeder, T. A., "Assessing Hurricane Effects: Part 2 – Uncertainty Analysis," Reliability Engineering and System Safety, Vol. 78, pp. 51-59, (2002).

Johnson, M.E. and Watson, C., Jr. "Hurricane Loss Estimation Models: Opportunities for Improving the State of the Art," Bulletin of the American Meteorological Society, November 2004, 84, 1713-1726.

Johnson, M.E., Watson, C., Jr., and Simons, M. "Insurance Rate Filings and Hurricane Loss Estimation Models," *J. of Insurance Regulation*, Vol. 22, Issue No. 3, Spring 2004, pp. 39-64.

Johnson, M. E., Iman, R. L., and Watson, C., Jr., 2005a: "Sensitivity Analysis for Computer Model Projections of Hurricane Losses," *Risk Analysis*, 25, 1277-1297.

Johnson, M. E., Iman, R. L., and Watson, C., Jr., 2005b: "Uncertainty Analysis for Computer Model Projections of Hurricane Losses," *Risk Analysis*, 25, 1299-1312.

Johnson, M. E., Iman, R. L., and Watson, C., Jr., 2006: "Statistical Aspects of Forecasting and Planning for Hurricanes," *The American Statistician*, 60, 105-121.

Johnson, M. E., Su, Xiaogang, Fan, Juanjuan, and Wang, Aaron, 2006: "On Simulating Multivariate Failure Times," *International Journal of Applied Mathematics and Statistics*, 5, 8-18.

Johnson, M. E., Bohachevsky, I., and Stein, M., 2006, "On the Derivation of Benford's Law," *American Journal of Mathematical and Management Sciences*, 26, 355-370.

Johnson, M. E. and Watson, C., Jr. , 2007: "Fitting Statistical Distributions to Data in Hurricane Modeling," *American Journal of Mathematical and Management Sciences*, 27, 479-498.

Johnson, M. E. and Watson, C., Jr. "Integrating Hurricane Loss Models with Climate Models," *Climate Extremes and Society*, R. Murnane, editor, Cambridge University Press, 2008, pp. 209-224, pp. 209-224.

ISO/TR 12845 Guidelines on Fractional Factorial Designs, International Standards Organization, Geneva, Switzerland. To be published by ISO.

Johnson, M. and Boulanger, M., 2008, "Dealing with Massive Data Sets," *Six Sigma Forum Magazine*, Featured Cover article, 8,14-20.

Johnson, M. E., Dumm, R., and Simons, M. (2009). "Inside the Black Box: Evaluating and Auditing Hurricane Loss Models," *Journal of Insurance Regulation*, 27, 41-58.

Johnson, M. E. (2009). "Discussion of 'Predicting Losses of Residential Structures in the State of Florida by the Public Hurricane Loss Evaluation Models' by S. Hamid, B. M. G. Kibria, S. Gulati, M. Powell, B. Annane, S. Cocke, J.-P. Pinelli and S.-C. Chen," *Statistical Methodology*, 7, 580-582.

Johnson, M. E. (2009). "Multivariate Statistical Simulation," *International Encyclopedia of Statistical Sciences*, M. Lovric, ed., to appear.

Johnson, M. E. and Watson, C., Jr. (2009). "Statistical Aspects of Hurricane Modeling and Forecasting," *International Encyclopedia of Statistical Sciences*, M. Lovric, ed., to appear.

Johnson, M. E. (2010). International Statistical Standards, A Guide to the Uninitiated, *ASQ Statistical Division Fall Newsletter*.

Johnson, M. E. and Jones, B. (2011). “Classical Design Structure of Orthogonal Designs with Six to Eight Factors and Sixteen Runs,” *Quality and Reliability Engineering International*, **27**, 61-70.

Johnson, M. E. and Boulanger, M. (2012). “Statistical Standards and ISO, Part 1,” *Quality Engineering*, **24**(1), 94-101.

Johnson, M. E. (2012). “Statistical Standards and ISO, Part 2—Terminology,” *Quality Engineering*, **24**(2), 346-353.

Johnson, M. E. (2012). “Statistical Standards and ISO, Part 4—Applications Related to the Implementation of Six Sigma,” *Quality Engineering*, **24**(4), 552-557.

Jupin, S., Watson, C. W., Jr. and M. Johnson, M. E. (2014). “A Comparison of TRMM and WRF model Hindcasts of Rainfall in the Caribbean,” *26th Conference on Weather Analysis and Forecasting / 22nd Conference on Numerical Weather Prediction*, Atlanta, GA, Jan. 2014.

Lu, L., Johnson, M. E. and Anderson-Cook, C. (2014). “Selecting a Best Two Level 16-run Screening design from the Catalog of Non-Isomorphic Regular and Non-regular Designs for Six to Eight Factors,” *Quality Engineering*, **26**, 269-284..

ISO 3534-4:2013 Statistics—Vocabulary and Symbols—Part 4: Survey Sampling, International Standards Organization, Geneva, Switzerland (convenor and project leader).

ISO 3534-3:2013 Statistics—Vocabulary and Symbols—Part 3: Design of Experiments, International Standards Organization, Geneva, Switzerland (convenor and project leader).

Johnson, M. E. and Watson, C. W., Jr. (2013). “*Et tu ‘Brute Force’? No! A Statistically-Based Approach to Catastrophe Modeling*,” *Proceedings from the Seventh Workshop on Simulation*, Rimini, Italy, May 21-25, 2013.

Johnson, M. E., Boulanger M. and Vastrick, T. W. (2013). “Development of an Extensive Forensic Handwriting Database—Statistical Components,” *Proceedings from the Seventh Workshop on Simulation*, Rimini, Italy, May 21-25, 2013.

Dumm, R. E., Johnson, M. E. Johnson, and Watson, C. C., Jr. (2014). “An Examination of the Geographic Aggregation of Catastrophic Risk,” *The Geneva Papers*, 1-19.

Johnson, M.E., Vastrick, T. W., Boulanger, M. and Schuetzner, E. (2017). “Measuring the Frequency Occurrence of Handwriting and Hand Printing Characteristics,” *Journal of Forensic Sciences*, to

appear in the January issue.

Editorial and Review Work

Associate Editor: Journal of Statistical Computation and Simulation, American Journal of Management and Mathematical Sciences, Journal of Quality Technology,
Associate Editor: Technometrics, 1984-1991.

Referee: Journal of the American Statistical Association, The American Statistician, Technometrics, Journal of Multivariate Analysis, Communications in Statistics, Journal of Quality Technology, SIAM, Management Science, IIE Transactions, Operations Research, Biometrics, IEEE Computing, American Journal of Mathematical and Management Sciences, Statistics and Probability Letters, Communications of the ACM, ACM Transactions on Mathematical Software, Annals of Applied Statistics.

Book Reviews: Fishman, G., Principles of Discrete Event Simulation, Journal of the American Statistical Association, pp. 242-243, 1979; Miller, R., Beyond ANOVA. Journal of the American Statistical Association, p. 946, 1987. Lewis, P. A. W. and Orav, E. J., Simulation Methodology for Statisticians, Operations Analysts, and Engineers, Volume I, Journal of Official Statistics, p. 306, 1989.

Proposal Reviewer: National Science Foundation, Army Research Office, American Institute of Physics.

Review Panel, National Science Foundation, Statistics and Probability Program, December, 1994.

Published Papers (non-refereed)

Johnson, M. E., Teagarden, W. and Ramberg, J.S., "Modeling and Generating Stochastic Inputs for Simulation Studies," Ninth Hawaii International Conference on System Science, (1976).

Johnson, M. E. and Ramberg, J.S., "A Bivariate Distribution System with Specified Marginals," Los Alamos Technical Report LA-6858-MS (1977).

Johnson, M. E. and Johnson, M., "A New Probability Distribution with Applications in Monte Carlo Studies," Los Alamos Technical Report LA-7095-MS (1978).

Johnson, M. E., McFarland, J., Monash, E. and Lohrenz, J., "MER (Maximum Efficient Rate) Using a Gas Reservoir Model with Waterflooding," Los Alamos Technical Report LA-6989-MSS (1978).

Johnson, M. E., Monash, E. and Waterman, M., "Modeling and Optimizing a Gas-Water Reservoir," Los Alamos Technical Report LA-7088 (1978).

Johnson, M. E., Ramberg, J. and Wang, C., "Robustness of Fisher's Linear Discriminant Function to Departures From Normality," Los Alamos Technical Report LA-8068-MS (1978).

Johnson, M. E. and Beckman, R. J., "A Probabilistic Model for Estimating the Effects of Vulcanism on Nuclear Waste Repositories," Los Alamos Report LA-UR-80-2166 (1980).

Johnson, M. E., Booker, J., Bryson, M.C., Campbell, K. and Goldman, A., "Applications of Cox's Proportional Hazards Model to Light Water Reactor Failure Data," Technical Summary Report for FY1980 (1980).

Johnson, M. E., Bryson, M. C. and Mills, C., "Some New Multivariate Distributions with Enhanced Comparisons via Contour and Three-Dimensional Plots," Los Alamos Report LA-8903-MS (1981).

Johnson, M. E. and Fleischhauer, H.L., "Soil Discrimination With Aerial Radiometric Data, Texas Gulf Coast," Department of Energy Report GJBX-281 (1981).

Johnson, M. E., Pirkle, F. and Newman, C.K., "Statistical Techniques Applied to Aerial Radiometric Surveys (STAARS): Discriminant Analysis Methods Applied to Aerial Radiometric Data and Their Application to Uranium Favorability in South Texas," Department of Energy Report GJBX-156 (1982).

Conference Presentations with Proceedings (refereed)

Johnson, M. E., Dudewicz, E. J. and Ramberg, J. S., "Fitting Distributions to Data With Moments: Sample Variability Effects," ASQC Technical Conference Transactions, Toronto, Canada, 1976.

Johnson, M. E. and Monash, E., "A Color Movie Simulation of a Gas-Water Reservoir," Eleventh Annual Simulation Symposium, pp. 95-102, Tampa, Florida, March 15-17, 1978.

Johnson, M. E., Tietjen, G. L. and Johnson, M., "Statistical Analysis in Nuclear Accountability: A Simulation Approach," Nuclear Safeguards Technology, Proceedings of an IAEA Symposium, pp. 371-376, Vienna, Austria, October 2-6, 1978.

Johnson, M. E. and Ramberg, J. S., "Transformations of the Multivariate Normal Distribution with Applications to Simulation," Eleventh Hawaii International Conference on System Science, pp. 163-167, 1978.

Johnson, M. E. and Tadikamalla, P. R., "A Survey of Methods for Sampling From the Gamma Distribution," Winter Simulation Conference, pp. 131-134, Miami Beach, Florida, December, 4, 1978.

Johnson, M. E., Tietjen, G. L. and Beckman, R. J., "A New Probability Distribution With Applications to Monte Carlo Robustness Studies," Proceedings of the ASA Statistical Computing

Section, pp. 79-83, 1978.

Johnson, M. E., Tietjen, G. L. and Beckman, R. J., "Computational Problems Related to a New Probability Distribution," Proceedings of the 12th Annual Symposium on the Interface, pp. 373-375, Waterloo, Ontario, Canada, May 10-11, 1979.

Johnson, M. E., Booker, J. and Easterling, R. G., "Proportional Hazards Models for Improving the Analysis of Light Water Reactor Component Failure Data," International ANS/ENS Topical Meeting on Probabilistic Risk Assessment, Port Chester, New York, September 20-24, 1981.

Johnson, M. E., Roberts, R. S. and Gorton, C., "Laboratory Experiments to Reinforce the Use of Statistics in Chemical Engineering," AIChE Annual Meeting, Chicago, November 11-16, 1990.

Johnson, M. E., Jones, K., and Liou, J. J., "The Comparison of Response Surface and Taguchi Methods for Multiple - Response Optimization Using Simulation," Thirteenth International Electronics Manufacturing Technology Symposium, Baltimore, September 28 - 30, 1992.

Conference Presentations Without Proceedings

"A Bivariate Distribution With Specified Marginals," Central Regional Meeting of IMS, Madison, Wisconsin, May 16-18, 1977.

"Elliptically Symmetric Distributions: Characterizations and Random Variate Generation," American Statistical Association National Meeting, Chicago, Illinois, August 15-18, 1977.

"Johnson's Translation System in Simulation," Hawaii International Conference on System Sciences, Honolulu, Hawaii, January 5-6, 1978.

"Bivariate Distributions with Specified Marginals," American Statistical Association National Meeting, San Diego, California, August 14-17, 1978.

"A New Univariate Probability Distribution," Annual Santa Fe Meeting of Albuquerque American Statistical Association Chapter, Santa Fe, New Mexico, April 27, 1979.

"Probability Distributions With Specified Marginals and Fixed Measures of Dependence," TIMS/ORSA Joint National Meeting, New Orleans, Louisiana, April 30-May 2, 1979.

"Random Sampling From the Exponential Power Distribution," Institute of Management Sciences XXIV International Meeting, Honolulu, Hawaii, June 18-22, 1979.

"A New Probability Distribution With Application to Monte Carlo Robustness Studies," American Statistical Association National Meeting, Washington, D.C., August 13-16, 1979.

"Combining Dependent Tests," Annual Santa Fe Meeting of Albuquerque American Statistical Association Chapter, Santa Fe, New Mexico, April 11, 1980.

"A Ranking Procedure for Partial Discriminant Analysis," Annual Santa Fe Meeting of Albuquerque American Statistical Association Chapter, Santa Fe, New Mexico, April 24, 1981.

"Some Guidelines for Constructing Exact D-Optimal Designs on Convex Design Spaces," American Statistical Association National Meeting, Detroit, Michigan, August 10-13, 1981.

"A Comparative Study of Tests for Homogeneity of Variances, With Applications to the Outer Continental Shelf Bidding Data," Technometrics Session, Fall Technical Conference, Gatlinburg, Tennessee, October 29-30, 1981.

"Generating Multivariate Distributions for Statistical Applications," Winter Simulation Conference, Arlington, Virginia, December 12, 1983.

"Optimal Accelerated Tests," American Statistical Association National Meeting, Philadelphia, Pennsylvania, August 13-16, 1984.

"Foutz' Test for Multivariate Normality," American Statistical Association National Meeting, Philadelphia, Pennsylvania, August 13-16, 1984.

"Probability of Volcanic Eruption," American Statistical Association National Meeting, Las Vegas, Nevada, August 5-8, 1985.

"Generalized Simulated Annealing for Function Optimization," Fall Technical Conference, Corning, New York, October 1985.

"Assessing Security Against Terrorist Attacks," ORSA/TIMS Joint National Meeting, Atlanta, Georgia, November 4-6, 1985.

"Distribution Selection in Statistical Simulation Studies," Winter Simulation Conference, Washington, D.C., December 8-10, 1986.

"Multivariate Statistical Simulation: Guidelines and Another Competitor," First International Conference on Statistical Computing, Izmir, Turkey, March 30-April 1, 1987.

"Perspectives of Bivariate Distributions," Albuquerque American Statistical Association Chapter Spring Meeting, Santa Fe, New Mexico, May 1, 1987.

"Simulated Annealing," TIMS/ORSA Joint National Meeting, New Orleans, Louisiana, May 4-6, 1987.

"Perspectives on Statistical Simulation," Twin Cities American Statistical Association Chapter, June 18, 1987.

"Lack-of-fit Measures for Grouped Data," American Statistical Association National Meeting, San

Francisco, California, August 17-20, 1987.

"Modeling and Generating Simulation Inputs," Winter Simulation Conference, December 14, 1987.

"A Selected Review of Multivariate Distributions in Simulation," TIMS/ORSA joint National Meeting, Washington, D.C., April 25-27, 1988.

"Modelling Multivariate Data Sets: Distributions and Issues," Gordon Research Conference on Statistics in Chemistry and Chemical Engineering, New Hampton, New Hampshire, August 1-5, 1988.

"Graphics in Statistical Research," ASA National Meeting, New Orleans, Louisiana, August 23-25, 1988.

"Experimental Design and Error-Correcting Codes," Special Workshop on Experimental Design, Waterloo, Ontario, July 1990.

"Statistics and the Dead Poet's Society," ASA Florida Chapter meeting, Gainesville, January 26, 1991.

"Optimization," Florida MAA Conference, Orlando, March, 1993.

"Not Ready for Prime Time Designs," IBM ITO Conference, Boca Raton, FL, April 26, 1993.

"Funding Opportunities for Statisticians," SRCOS meeting, Williamsburg, VA, June 1994.

"Not-Ready-for-Prime-Time Designs," IMS Regional Meeting, Chapel Hill, NC, June 1994.

Service and Professional Affiliations

Member: American Statistical Association (Fellow), Royal Statistical Society (Fellow and Chartered Statistician), Institute of Mathematical Statistics, Biometric Society (ENAR), American Society for Quality Control.

Member, NRC review committee on nuclear waste storage in bedded salt. December 4-8, 1978.

Discussant, Random Variate Generation Invited Session, Winter Simulation Conference, San Diego, California, 1979

Program Chairman, SPES Section, American Statistical Association Annual Meeting, 1987.

Member, Program Committee, Interface Symposium, 1988.

Member, Program Committee, ASA Winter Conference, 1990.

ASA representative, SRCOS, 1994.

ASA/IMS Annual Meetings, 1995, Local arrangements committee.

External Examiner, Dr. X. Chen, University of Waterloo, May 1996.

Mohonk Conference, Orlando, May 1997, Program committee.

Other contributions (seminar presentations).

"Projects in the Statistics Group at Los Alamos," Departments of Systems Engineering and Statistics, University of Iowa, November 30, 1976.

"Statistics Projects and Research at Los Alamos," Department of Quantitative Analysis, New York University, New York, September 28, 1978; Department of Systems and Industrial Engineering, University of Arizona, Tucson, Arizona, February 14, 1979.

"Probability Distribution Research in Applied Scientific Work," Department of Statistics and Computer Science, University of Georgia, Athens, Georgia, November 2, 1981.

"Distribution Families for Random Variate Generation and Multivariate Data Analysis," Department of Mathematics, University of Southern California, December 4, 1982.

"Selecting and Generating Multivariate Distributions for Monte Carlo Studies," College of Business, Arizona State University, May 6, 1986.

"Simulated Annealing and the Gambler's Ruin Problem," University of Minnesota, October 7, 1986.

"Multivariate Simulation and Annealing," Department of Mathematics, University of Southern California, October 14-17, 1986 (3 lectures).

"Optimal Minimax and Maximin Distance Statistical Design," Department of Statistics, University of Florida, October 13, 1988.

"Optimal Minimax and Maximin Distance Designs," Department of Mathematical Sciences, Clemson University, June 7, 1989.

"Optimal Minimax and Maximin Distance Statistical Design," Department of Statistics, University of South Carolina, February 22, 1990.

"Multivariate Distributions and Particle Scattering," Department of Mathematics, UCLA, May 10, 1990.

“Quality Systems Standards for the 1990s: International Registration of Quality Systems,” Atlanta, November 26-27, 1990.

"Distribution Delights and Jeopardy," Department of Experimental Statistics, Louisiana State University, December 7, 1990.

“Statistics in Chemical Engineering,” ASA Annual Meeting, Atlanta, August 1991.

“Quality Systems Standards for the 1990s: International Registration of Quality Systems,” Orlando, October 21-22, 1991.

“New Statistical Standards,” ASQC Vision 2000 Conference, Cocoa Beach, FL, March 26, 1992.

“Quality Systems Standards for the 1990s: International Registration of Quality Systems,” Atlanta, December 12-13, 1992.

“Stats, Lies and Other Escapes,” Cape Canaveral Section of ASQC, Titusville, FL, May 14, 1993.

“Statistics in Practice: From Semiconductors to Citrus,” South Florida Chapter ASA meeting, February 9, 1995.

“Genetic and other Stochastic Optimization Algorithms,” Háskóli Íslands, Reykjavík, May 11, 1995.

“Optimization Issues in Statistical Applications,” Department of Mathematics and Statistics, University of Southwestern Louisiana, February 9, 1996.

“Theory and Applications of Stochastic Optimization Algorithms,” Department of Mathematics, Paul Sabateur University, Toulouse, May 14, 1996.

“Statistical Consulting,” Department of Statistics, University of Toulouse, May 28, 1996.

“Stochastic Optimization with Applications to the DNA Sequencing Problem,” Technical University of Denmark, Lyngby, June 6, 1996.

“Hurricane Landfalls: A Statistical Perspective,” National Hurricane Center, Miami, December 13, 1996.

“U.S. Tropical Cyclone Landfalls 1970-1995: Forecast Performance,” Department of Statistics, Florida International University, January 17, 1997.

“Normative Approach to Statistical Terminology,” ISO TC69 Annual Meeting, Paris, France, June 17, 1997.

“Return Period Estimation for Montego Bay,” Workshop in Kingston, Jamaica, October 31, 1997, Organization of American States.

“Review of Hurricane Research,” University of Arizona, Tucson, November 6, 1997

“Survey of Hurricane Related Research,” ASA Chapter Meeting, Orlando, February, 1998.

“Proprietary Issues for the Professional Team in Support of the Florida Commission on Hurricane Loss Estimation Methodology,” Casualty Actuarial Society Spring Meeting, Marco Island, May 1998.

“Statistical Aspects of DCA Project for Florida,” Governor’s Hurricane Conference, Tampa, Fl, June 4, 1998.