Curriculum Vitae

Stanley L. Sclove

Contents

Curriculum Vitae

Stanley L. Sclove

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Education

A.B.	(Applied Honors Mathematics cum laude)	1962	Dartmouth College	Hanover, NH
Ph.D.	(Mathematical Statistics)	1967	Columbia University	New York, NY

Professional Experience

2005 to date: *Coordinator, Business Statistics Area-of-Inquiry, PhD Program in Business Administration*
University of Illinois at Chicago

1982 to date: *Professor of Information & Decision Sciences*
University of Illinois at Chicago

Coordinator of Business Statistics Area-of-Inquiry of the PhD Program in Business Administration, 2004 - . Director of Graduate Studies, 1997. Member, College Executive Committee, 1995-1997. Member, Departmental Advisory Committee, 1994-date. (Department Heads: Robert A. Abrams, James Ho, Arkalgud Ramaprasad, James Christopher Westland)

2002 to date: *Professor of Bioengineering*
College of Engineering, University of Illinois at Chicago

Courtesy appointment (Department Head: Richard Magin)

1995 to date: *Professor of Mathematics, Statistics & Computer Science*
College of Liberal Arts & Sciences, University of Illinois at Chicago

Courtesy appointment (Department Heads: Henri Gillet, Jerry Bona, David Marker)

1982 to date: *Professor of Biostatistics*
School of Public Health, University of Illinois at Chicago

Courtesy appointment (Division Directors: Paul Levy, Faith G. Davis)

1981-82: *Professor of Mathematics*
University of Illinois at Chicago

1980-81: *Visiting Associate Professor of Industrial Engineering & Management Sciences*
Northwestern University, Evanston, Illinois

Duties included teaching graduate and undergraduate courses in statistics; research and consulting. (Department Head: Art Hurter)

1972-81: *Associate Professor of Mathematics*
University of Illinois at Chicago

As Chairman, Committee on Statistics and Related Fields, 1973-76, established the department's curriculum in statistics. Duties included teaching graduate and undergraduate courses in statistics and mathematics, curriculum development, research, and consulting. (Department Heads: Joseph Landin, Philip Dwinger, Louise Hay)

1971-72: *Visiting Assistant Professor of Statistics and Education*
Stanford University, Stanford, California (Department Head: Rupert Miller)

1968-72: *Assistant Professor of Statistics*
Carnegie-Mellon University, Pittsburgh, Pa. (Department Head: Morris DeGroot)

1966-1968: *Research Associate*
Department of Statistics, Stanford University

Employed on a contract with the Office of Naval Research (Principal Investigator: H. Solomon; Senior Investigator: H. Chernoff). Duties included consultation on problems submitted by various government agencies and research in estimation theory and multivariate analysis.

Summers, 1962-1964 *Mathematical Statistician, GS-5 to GS-9*
Taft Center, U.S. Public Health Service, Cincinnati, Ohio

Duties included regression analysis, analysis of variance, and report writing for biological and chemical studies, literature review, presentation of seminars on multivariate analysis and stochastic processes to other statisticians, consulting to computer programming section. Specific projects included analysis of data on effects on humans and animals of exposure to auto exhaust, on disposition of radionuclides in streams, and data processing of public-opinion questionnaire on air pollution. (Supervisor: Kenneth.A. Busch)

1962-64: *Teaching Assistant* (1962-3) and *Preceptor* (1963-4)
Graduate Departments. of Sociology and Mathematical Statistics
Columbia University, New York, New York

Duties included teaching discussion sections, writing and grading exercises and examinations in statistics course for graduate students in social sciences (Professors in course: T. W. Anderson and Erling Sverdrup)

Continuing Education

Short Courses, etc., Taken

IEEE Computer Society Tutorial on Digital Image Processing, Chicago, 5/30/78

NATO Advanced Study Institute: Pattern Recognition & Signal Processing, Paris, 6/26-7/4/78

NATO Advanced Study Institute: Digital Image Processing & Analysis, Bonas, France, 6/23-7/4/80

NATO Advanced Study Institute: Statistical Distributions in Scientific Work, Trieste, Italy, 7/14-31/80

Short Course on Numerical Analysis of Remote Sensing Data, Laboratory for Applications of RemoteSensing, Purdue University, 12/14-18/81

Continuing Education Lectures Attended

"Developing and Using Protein Models" 15-Feb-1991

"Research Synthesis and Meta-Analysis in Medicine" (Ingram Olkin and Thomas Chalmers) 14-Feb-1992

Honors

Travel Grant, NATO Advanced Study Institute: Paris, 1978
Travel Grant, NATO Advanced Study Institute: Trieste, 1980
Elected Full Member, Operations Research Society of America, 1972
New York State Regents Fellowship for Doctoral Study, 1965-66
Columbia University President's Fellowship, 1964-65
New York State Regents College Teaching Fellowship, 1964-65 (declined)

Memberships

American Association for the Advancement of Science
American Association of University Professors
American Mathematical Society
American Statistical Association
    Risk Analysis Section
        Council of Sections Rep. in 2008-2009; Past Chair in 1999, Chair in 1998, Chair-Elect in 1997, Program Chair in 1994-5
    Chicago Chapter Board of Directors, 1975-76
Bernoulli Society
Classification Society (formerly CSNA)
    Secy/Treas, 1997 - ; Finance Committee, 1992-6; Board of Directors, 1993-5
IEEE Computer Society
Institute of Mathematical Statistics
INFORMS: Institute for Operations Research and the Management Sciences (elected Full Member)
Mathematical Association of America
Society of the Sigma Xi

Areas of Specialization

Multivariate statistical analysis
Cluster analysis
Statistical model-selection criteria

Current Research Interests

Time-series segmentation by Hidden Markov models, with applications to macroeconomics, financial investments analysis, and customer relationship management
Decision Risk Analysis in Testing and Acceptance Sampling in Statistical Quality Control

Invited Lectures for Professional Societies

2011: July 29-Aug.4: "Bernie Harris' Contributions to Cluster Analysis", Joint Statistical Meetings, Miami Beach. *Proc. JSM 2011*, ASA

2011: June 15-17: "Bernie Harris' Contributions to Cluster Analysis", Classification Society Annual Meeting, Carnegie Mellon University, Pittsburgh

2007: June 1-3: "Matric Musings in Statistical Finance," IWMS XVI – 16th Meeting of the International Workshop on Matrices and Statistics, University of Windsor, Ontario

2000: June 8-11: "Clustering and Decision Risk Analysis: An Example," Annual Meeting, Classification Society of North America, sponsored by GERAD: Center for Research in Decision Analysis, École des Hautes Études Commerciales, Université de Montréal.

1997: Oct. 9: "Application of Statistical Cluster Analysis to Assessing Accuracy of a Medical Lab Machine," INFORMS Chicago Chapter.

1995: Apr 11: "Cluster and Factor Analysis," Chicago Chapter, American Statistical Association; Mini-Conference on Market Segmentation, East Bank Club, Chicago.

1991: June 13-16: "Cluster Analysis of Internal Rotation Angles of Amino-Acid Residues" (with S. A. Sherman and M. Johnson), Annual Conference, Classification Society of North America, Rutgers University, New Brunswick, NJ.

1991: Mar 15: "Mixture Model Clustering," Chicago Chapter American Statistical Association Special One-Day Conference on Cluster Analysis: "Groping with Grouping" .

1989: June 27-30: "Regression in Mixture Distributions," 2nd Conference, International Federation of Classification Societies, Charlottesville, VA.

1986: June 21-24: "Application of Model-Selection Criteria to Some Problems in Multivariate Analysis", Symposium on Statistical Modeling and Model Evaluation, Psychometric Society Annual Meeting, Toronto.

1986: May 15-16: "Metric Considerations in Clustering: Implications for Algorithms," Advanced Symposium on Multivariate Statistical Modeling and Data Analysis, Annual Meeting, Statistics Section, Virginia Academy of Science, James Madison University, Harrisonburg, Va.

1984: Oct. 17-19: "Segmentation of Signals, Time Series and Images," Thirtieth Conference on Experimental Design in Army Research, Development and Testing, New Mexico State University, Las Cruces, NM.

1982: Oct. 22-23: "Time-Series Segmentation: a Model and a Method," Workshop on Applied Time Series Analysis, Adaptive and Learning Systems Technical Committee, IEEE Systems, Man and Cybernetics Society, Technical University of Munich, in conjunction with the 6th International Conference on Pattern Recognition.

1981: Oct. 16-18: "On Segmentation of Time Series," Special Session on Cluster Analysis, " Meeting of American Mathematical Society, University of Massachusetts, Amherst, MA.

1975-1977: Lecturer, Visiting Lecturer Program in Statistics, Committee of Presidents of Statistical Societies, Gave three lectures at Illinois Benedictine College, Lisle, Illinois.

1975: April/May and 1976: April/May: Workshop on Regression Analysis, Chicago Chapter, American Statistical Association.

1974: April 22-24: "Fingerprint Probabilities," Annual National Meeting, Operations Research Society of America, Boston.

1972: Feb. 24-25: "Clustering Algorithms Derived from a Conditional Population-Mixture Model," The Classification Society, Annual Meeting.

1972: Feb. 24-25: "Probability Models in Cluster Analysis," Western Regional Meeting, Operations Research Society of America, Lake Tahoe, California.

1969: Nov 11: " 'Esting': Combination of Estimators in Some Regression Problems," Pittsburgh Chapter, American Statistical Association.

Publications

Articles

Published

1. Stanley L. Sclove, Gordon Simons and John Van Ryzin, Further remarks on the expectation of the reciprocal of a positive random variable. *The American Statistician* **21**, No. 4 (Oct., 1967), 33-34.

2. Improved estimators for coefficients in linear regression. *Journal of the American Statistical Association* **63** (1968), 596-606.

3. Stanley L. Sclove and John Van Ryzin. Estimating the parameters of a convolution, *Journal of the Royal Statistical Society* **B31** (1969), 181-191.

4. Stanley L. Sclove and John Van Ryzin . Estimating the parameters of a linear function of a random variable. J*ournal of the Royal Statistical Society* **B32** (1970), 362-368.

5. Admissibility of the maximum likelihood estimator in the regression of two predictands on one stochastic predictor. *Annals of the Institute of Statistical Mathematics* **22** (1970), 171-174.

6. Some remarks on normal multivariate regression. *Annals of the Institute of Statistical Mathematics* **22** (1970) 319-326.

7. Improved estimation of parameters in multivariate regression. Sankhya **A33** (1971), 61-66.

8. On missing value estimation in experimental design models. *The American Statistician* **26**, No. 2 (Apr., 1972), 25-26.

9. Y vs. X or log Y vs. X? *Technometrics* **14** (1972), 391-403.

10. Stanley L. Sclove, Carl Morris and R. Radhakrishnan. Non-optimality of preliminary-test estimators for the mean of a multivariate normal distribution. *Annals of Mathematical Statistics* **43** (1972), 1481-1490.

11. Shyam Johari and Stanley L. Sclove. Partitioning a distribution. *Communications in Statistics* **A5** (1976), 133-147.

12. Population mixture models and clustering algorithms. *Communications in Statistics* **A6** (1977), 417-434.

13. James W. Osterburg, T. Parthasarathy, T.E.S. Raghavan and Stanley L. Sclove. Development of a mathematical formula for the calculation of fingerprint probabilities based on individual characteristics. *Journal of the American Statistical Association* **72** (1977), 772-778.

14. Testing independence of variates in an infinitely divisible random vector. *Journal of Multivariate Analysis* **8** (1978), 479-485.

15. The occurrence of fingerprint characteristics as a two-dimensional process. *Journal of the American Statistical Association* **74** (1979), 588-595.

16. The occurrence of fingerprint characteristics as a two-dimensional Poisson process. *Communications in Statistics* **A9** (1980), 675-695.

17. Pattern recognition in image processing using interpixel correlation. *IEEE Transactions on Pattern Analysis and Machine Intelligence* **3** (1981), 206-208

18. Some recent statistical results for infinitely divisible distributions. In C. Taillie, G.P. Patil, and B.A. Baldessari (eds.), *Statistical Distributions in Scientific Work, Vol. 4: Models, Structures and Characterizations (NATO Advanced Study Institutes Series C, Mathematical and Physical Sciences, Vol. 79)*. D. Reidel Publ. Co., Dordrecht, Holland, 1981, 267-280.

19. Modeling the distribution of fingerprint characteristics. In C. Taillie, G.P. Patil, and B.A. Baldessari (eds.), *Statistical Distributions in Scientific Work 6: Applications in Physical, Social and Life Sciences (NATO Advanced Study Institutes Series C, Mathematical and Physical Sciences, Vol. 79).* D. Reidel Publ. Co., Dordrecht, Holland, 1981, 111-130.

20. Some aspects of inference for multivariate infinitely divisible distributions. *Statistics & Decisions* **1** (1983) 305-321

21. Time-series segmentation: a model and a method. *Information Sciences* **29** (1983), 7-25

22. Application of the conditional population-mixture model to image segmentation, *IEEE Transactions on Pattern Analysis and Machine Intelligence* **5** (1983), 428-433.

23. On segmentation of time series. In *Studies in Econometrics, Time Series, and Multivariate Statistics: Volume in Honor of T. W. Anderson* (S. Karlin, T. Amemiya, and L. Goodman, eds.), Academic Press, 1983, pp. 311-330.

24. On segmentation of time series and images in the signal detection and remote sensing contexts. Statistical *Signal Processing* (Edw. J. Wegman and James G. Smith, eds.), Marcel Dekker, Inc., 1984, pp. 421-434.

25. Hamparsum Bozdogan and Stanley L. Sclove. Multi-sample cluster analysis using Akaike's information criterion," *Annals of the Institute of Statistical Mathematics* **36** (1984), 163-180.

26. Pattern recognition. In *Encyclopedia of Statistical Sciences* **6** (S. Kotz and N. Johnson, eds.), John Wiley & Sons, Inc., 1985, pp. 642-647.

27. Application of model-selection criteria to some problems in multivariate analysis. *Psychometrika* **52** (1987), 333-343.

28. Metric considerations in clustering: Implications for algorithms. In *Multivariate Statistical Modeling and Data Analysis* (H. Bozdogan and A.K. Gupta, eds.). D. Reidel Publishing Company, Dordrecht, Holland, 1987, pp. 163-186.

29. A.A. Podowski, S. L. Sclove, A. Pilipowicz and M.A.Q. Khan. Biotransformation and disposition of Hexachlorocyclopentadiene in fish. *Archives of Environmental Contamination and Toxicology* **20** (1991), 488-496.

30. Some aspects of model-selection criteria. *Proceedings of the 1st U.S./Japan Conference on the Frontiers of Statistical Modeling An Informational Approach* **2** *(Multivariate Statistical Modeling)*, 37-67. H. Bozdogan (ed.), Kluwer Academic Publishers, Dordrecht, the Netherlands, 1993.

31. Hamparsum Bozdogan, Stanley L. Sclove and Arjun K. Gupta. AIC-replacements for some multivariate tests of homogeneity with applications in multisample clustering and variable selection. *Proceedings of the 1st U.S./Japan Conference on the Frontiers of Statistical Modeling: An Informational Approach* **2** *(Multivariate Statistical Modeling)*, pp. 199-232. H. Bozdogan (ed.), Kluwer Academic Publishers, Dordrecht, the Netherlands, 1993.

32. Large- and small-sample statistical model-selection criteria. *Selecting Models from Data: Artificial Intelligence and Statistics IV (Springer Lecture Notes in Statistics No. 89)*, pp. 31-39. P. Cheeseman and R.W. Oldford (eds.), Springer Verlag, New York, 1994.

33. Simon Sherman, Stanley Sclove, Leonid Kirnarsky, Igor Tomchin and Oleg Shats. Improvement in the accuracy of protein local structure determination from NMR data. *Journal of Molecular Structure: THEOCHEM -- Theory and Modeling in Chemistry*, **368** (1996) 153-161.

34. Stanley L. Sclove and Simon A. Sherman. A priori and a posteriori mixture distributions for using databases in protein structure determination. *Journal of Molecular Structure: THEOCHEM -- Theory and Modeling in Chemistry*, **419** (1997) 245-*255.*

35. Simon Sherman, Stanley L. Sclove, Oleg Shats, and Leonid Kirnarsky. Dihedral probability cluster Monte Carlo procedure for conformational analysis of proteins. *Internet Journal of Chemistry*, **1,** Article 22, 8 pp. URL: http://www.ujc.com/articles/1998v1/22.

36. Lon-Mu Liu, Siddhartha Bhattacharyya, Stanley L. Sclove, Rong Chen, William J. Lattyak. Data mining on time series: an illustration using fast-food restaurant franchise data. *Computational Statistics and Data Analysis*, **37** (2001) 455-476.

37. Assessing accuracy and precision of a medical lab machine by means of cluster analysis. *Journal of Classification* **19** (2002), No. 2, 197-214.

38. Vikas Grover, Rebecca B. Lipton, and Stanley L. Sclove. Seasonality of month of birth among African American children with diabetes mellitus in the city of Chicago. *Journal of Pediatric Endocrinology and Metabolism* **17** (2004), 289-296.

39. Robert D. Gibbons, Nicole A. Lazar, Dulal K. Bhaumik, Stanley L. Sclove, Hua Yun Chen, Keith R. Thulborn, John A. Sweeney, Kwan Hur, Dave Patterson. Estimation and classification of fMRI hemodynamic response patterns. *NeuroImage* **22**, 2 (June, 2004), 804-814.

40. Stevan Weine, Suzanne Feetham, Yasmina Kulauzovic, Alma Lezic, Sanela Besic, Aida Mujagic, Jasmina Muzurovic, Dzemila Spahovic, John Rolland, Stanley Sclove, Ivan Pavkovic. A mixed-methods study of refugee families engaging in multi-family groups. *Family Relations,* **Vol. 54, Issue 4,** Oct 2005, 558-568.

41. S. L. Sclove. Path analysis. In N. J. Salkind (Ed.), *Encyclopedia of Measurement and Statistics* (*Vol. 2,* pp. 745-748). Sage Publications, Thousand Oaks, CA, 2007.

42. Stanley L. Sclove. Cluster analysis. *International Encyclopedia of the Social Sciences, 2nd ed*. William A. Darity (ed.). Detroit: Macmillan Reference USA (Gale / Thomson), 2008.

43. Stanley L. Sclove. Principal components. *International Encyclopedia of the Social Sciences, 2nd ed.* William A. Darity (ed.) Detroit: Macmillan Reference USA (Gale / Thomson), 2008.

44. S. L. Sclove. *F* test. In N. J. Salkind (ed.), *Encyclopedia of Research Design.* Sage Publications, Thousand Oaks, CA. 2010.

Submitted

Ziqian Huang and Stanley L. Sclove (2011). Segmenting the Time Series of a Market Index using a Hidden Markov Model. (To *Journal of Classification*)

Work in Progress

WIP1. Sclove, Stanley L. Optimization of a class of expected utility functions in stock portfolio analysis.

WIP2. Stanley L. Sclove. Optimization of Expected Risk-Averse Utility, with Transaction Costs.

WIP3. Stanley L. Sclove. "Cosquariance": Measures of Correlation for Infinitely Divisible Time Series, with Application to Financial Investments Analysis.

Articles in Unrefereed Proceedings

P1. On segmentation of signals, time series, and images. *Proceedings of the Thirtieth Conference on the Design of Experiments in Army Research, Development and Testing,* U.S. Army Research Office, Research Triangle Park, NC, 1985, pp. 267-290.

P2. Statistical models and methods for cluster analysis and segmentation. *Proceedings of the Thirty-First Conference on the Design of Experiments in Army Research, Development and Testing*, U.S. Army Research Office, Research Triangle Park, NC, 1986, pp. 29-38.

P3. Stanley L. Sclove and Simon A. Sherman. Cluster analysis of dihedral angles of amino acid residues in proteins. Pages 399-404 in *1994 Proceedings of the Biopharmaceutical Section of the American Statistical Association.* American Statistical Association, Alexandria, VA, 1995.

P4. Stanley L. Sclove. Markov models for economic time series, with application to GDP. *2004 Proceedings of the Business and Economics Section of the American Statistical Association,* 1320-1327. American Statistical Association, Alexandria, VA, 2005.

P5. Stanley L. Sclove. Economic Phases via Velocity and Acceleration of GDP. *2005 Proceedings of the Business and Economics Section of the American Statistical Association,* 926-932. American Statistical Association, Alexandria, VA, 2005.

P6. Stanley L. Sclove. Bernie Harris's Contributions to Cluster Analysis. *2011 Proceedings of the Joint Statistical Meetings of the American Statistical Association,* 3419-3423. American Statistical Association, Alexandria, VA, 2011.

Unpublished Technical Reports and Working Papers

Stanley L. Sclove (1969). On criteria for choosing a regression equation for prediction. Technical Report No. 28, Department of Statistics, Carnegie-Mellon University.

Stanley L. Sclove (1992). CLUSPAC: Computer Programs for Mixture-Model Cluster Analysis. *CRIM Working Paper No. 92-1,* January, 1992. Center for Research in Information Management, College of Business Administration, University of Illinois at Chicago.

Sclove, Stanley L. Mixture-Model Clustering Analysis. *CRIM Working Paper No. 92-2,* March, 1992. (Revision of CRIM Working Paper 91-8, December, 1991.) Center for Research in Information Management, College of Business Administration, University of Illinois at Chicago.

Stanley L. Sclove (2008). A Derivation of the Logistic Regression Model from the Model for Gaussian Discriminant Analysis. Research Memorandum, Department of Information & Decision Sciences, University of Illinois at Chicago. 2007: Dec. 15, rev. 2008: Jan. 22.

Sclove, Stanley L. The Variance of a Product. *Working Paper No. SLS-2009-1,* March, 2009. Department of Information & Decision Sciences, College of Business Administration, University of Illinois at Chicago.

Sclove, Stanley L. A Review of Statistical Model-Selection Criteria for Multiple Linear Regression. Research Memorandum, Technical Report No. SLS-2009-2, 2009: Dec. 5, rev. 2011: May 30. Department of Information & Decision Sciences, University of Illinois at Chicago.

Copyright

CLUSPAC: Computer Programs for Mixture-Model Cluster Analysis. Copyright (C) 1992 Stanley L. Sclove. (Discussed in CRIM Working Paper 92-1.)

Book Reviews

Modern Methods for Statistical Analysis by Pazer and Swanson. *Journal of the American Statistical Association* **68** (1973) 499

Fundamentals of Mathematics and Statistics for Students of Chemistry and Allied Subjects, by Brookes, Betteley, and Loxston. *Technometrics* **23** (1981), 111.

Mathematical Statistics, 3rd ed., by Freund and Walpole. *Technometrics* **23** (1981), 112.

Books

T. W. Anderson and Stanley L. Sclove. *Introductory Statistical Analysis*. Houghton Mifflin, Boston, 1974.

T. W. Anderson and Stanley L. Sclove. *An Introduction to the Statistical Analysis of Data.* Houghton Mifflin, Boston, 1978

T. W. Anderson and Stanley L. Sclove. *An Introduction to the Statistical Analysis of Data.* 2nd ed. Scientific Press, Palo Alto, 1986.

H. Bozdogan (ed.), S. L. Sclove, A. K. Gupta, D. Haughton, G. Kitagawa, T. Ozaki, K. Tanabe (co-eds.). *Proceedings of the First US/Japan Conferencce on the Frontiers of Statistical Modeling: An Informational Approach.* Kluwer Academic Publishers, Dordrecht, The Netherlands, 1994.

David Moore, George McCabe, Wm. Duckworth III and Stanley L. Sclove . *The Practice of Business Statistics.* W. H. Freeman & Co., New York, 2003.

Stanley L. Sclove. *A Course on Statistics for Finance*. CRC Press / Chapman Hall / Taylor & Francis. Scheduled publication date: 2012: Nov. 26.

Lecture Notes

A Short Course on Applied Regression Analysis (1977. Based on workshops given at ALCOA Research Labs and for the Chicago Chapter, American Statistical Association)

Work in Progress

Stanley L. Sclove, Optimality Criteria and Estimation in Stock Portfolio Analysis. Presented at International Workshop on Matrices and Statistics, University of Windsor, ON, Canada, July, 2007.

Stanley L. Sclove. A Risk-Averse Utility-Function Framework for Stock Portfolio Rebalancing. Presented at Central Regional Meeting, American Mathematical Society, Western Michigan University, Kalamazoo, October 2008.

Stanley L. Sclove. A Review of Infinitely Divisible Distributions and Time Series, with Application to Financial Volatility.

Rosario Ortiz and Stanley L. Sclove. A Statistical Look at Day Trading.

Research Grants & Contracts

Recipient or Principal Investigator

Grant, Center for Research in Information Management (CRIM), College of Business Administration, University of Illinois at Chicago, with Prof. Lon-Mu Liu. 1-July-1999/30-June-2000. 15.0 K$. "Integration of Statistics in MIS Research and Education." Research on data mining; development of curriculum, esp. for IDS 472: Statistical Methods for Information Systems and Data Mining.

Army Research Office Contract DAAG29-82-K-0155, IDS Dept., UIC, 6/16/82 - 6/15/85: "Statistical Models and Methods for Cluster Analysis and Image Segmentation"

Office of Naval Research (ONR) Contract N00014-80-C-0408, Task NR042-443, Mathematics Dept., UIC, 4/1/80 - 12/31/82: "Development of Algorithms and Procedures for Image Processing based on Two-Dimensional Markov Models"

Air Force Office of Scientific Research (AFOSR) Grant 77-3454, Mathematics Dept., UIC, 9/30/77- 9/30/78: "Pattern Recognition for Certain Stochastic Data Structures"

Sarah Mellon Scaife Foundation Grants at Carnegie-Mellon University, 1968-69, 1969-70

Participant (*i.e.*, Sclove was an Investigator):

AFOSR Grant 76-3050, Mathematics Dept. (A. Hedayat), UIC, Summer, 1976: Optimal Repeated Measurements Designs, Robust Optimal Designs, Survey Designs and Pattern Recognition for Certain Multivariate Data Structures

Fingerprint Probability Research Project, Center for Research in Criminal Justice, University of Illinois at Chicago Circle, Summer, 1974

NSF Grant, Center for Math'l Studies in Economics (T. W. Anderson), Stanford University, Summer, 1972

NSF Grant, Statistics Dept.(I. Olkin), Stanford University, Oct.-Dec., 1971

NSF Grant, Statistics Dept. (M. DeGroot, D. Gaver), Carnegie-Mellon Univ., Summer, 1970

ONR Contract, Statistics Dept. (H. Solomon, H. Chernoff), Stanford Univ., 1966-68

Consulting

Customer Development Corp., Peoria and Downers Grove, IL (May, 1995)

Systat, Inc., Evanston, IL (January, 1991)

Hematology Lab, Rush North Shore Medical Center, Skokie, IL (March-June, 1990)

Campbell Soup Co., Chicago (August, 1985)

Ameritech Mobile Communications, Schaumburg, Illinois (May, 1985)

Police Department, Boulder, Colorado (April, 1985)

Expert witness, discrimination case, Federal Court, Chicago, Illinois (March, 1984)

Medical Products Marketing Service, Northfield, IL (Jan.-Apr.,1984)

Nalco Chemical Company, Chicago, Illinois (June, 1981)

Palo Alto (California) Unified School District (March, 1972)

Palo Alto (California) Medical Research Foundation (Feb., 1972)

ALCOA Research Laboratories, New Kensington, Pennsylvania (Nov.-Dec., 1969)

(with G.P.H. Styan and P.A. Trenholme) Pharmaceutical clinical trial (Robt. Wolf, M.D., Mt. Sinai Hospital, New York, N.Y., July-Aug., 1965)

Evans Research and Development Corporation, New York, N.Y. (June, 1965)

Biographical Listings

Biography listed in:

Bowker's American Men & Women of Science: 16th ed. (1990-91); 17th ed. (1992-93); 18th ed. (1994-95)

Marquis Who's Who in Emerging Leaders: 2nd ed. (1989-90)

Marquis Who's Who in the Midwest: 21st ed. (1990-91); 23rd ed. (1992-93)

Marquis Who's Who in American Education: 4th ed. (1994-95)

Marquis Who's Who in America, 57th ed, 2003

Marquis Who's Who in America, 58th ed, 2004

Doctoral Students, with current positions

1) Ramaswamy Radhakrishnan, Ph.D., Statistics, Carnegie-Mellon University, 1971; dissertation on estimation in multivariate statistical analysis. Associate Professor, Marketing & Management Dept., College of Business, Illinois State University, Normal, Illinois

2) Shyam Johari, Ph.D., Mathematics, University of Illinois at Chicago Circle, 1975; dissertation on partitioning distributions. Mgr., Performance Group, Tandem Computers, Inc., Cupertino, CA 95014

3) Damber Singh Tomer, Doctor of Arts, Mathematics, University of Illinois at Chicago Circle, 1977; dissertation on infinitely divisible distributions. Associate Professor, Dept. of Math. & Comp. Sci., University of Central Arkansas, Conway, AR

4) Hamparsum Bozdogan, Ph.D., Mathematics, University of Illinois at Chicago Circle, 1981; dissertation on cluster analysis. Professor, Mackenzie Chair, Dept. of Statistics and Management Sciences, University of Tennessee, Knoxville

5) David M. Hull, Ph.D, Mathematics, University of Illinois at Chicago Circle, 1982; dissertation on bisexual branching processes. Dept. of Mathematics & Computing Science, Valparaiso University, Valparaiso, Indiana

6) Rosario Ortiz, Ph.D., Mathematics, Statistics, and Computer Science, University of Illinois at Chicago, 2008; dissertation on A Statistical Look at Stock Day Trading. Faculty of Business, University of Puerto Rico – Mayaguez.

7) Yanli Cui, PhD in Business Administration (Business Statistics Area-of-Inquiry), 2009; dissertation on Three Essays in Statistical Finance: Index Tracking by Co-integration; Conditional Volatility; and Regime-Switching Evaluation of Momentum Portfolios. Investment Division, John Deere, Moline, IL.

8) John Sparks. PhD in Business Administration (Business Statistics Area-of-Inquiry), 2009; dissertation on Comparison of Data-Mining and Statistical Techniques for Classification. PhD May, 2009. Clinical Assistant Professor, IDS, CBA, UIC.

9) Xiqian (Tony) Huang. Business Statistics Area-of-Inquiry, PhD in Bus Adm, UIC. Segmentation of Financial and Marketing Data: Mixture Logit Model and Hidden Markov Model. Dissertation defended May, 2011. Catalina CPG, Schaumburg, IL.

10) Candice Jing Cai. Business Statistics Area-of-Inquirty, PhD in Bus Adm UIC. Topics in Financial Asset Pricing: a Resolution of the Equity Premium Puzzle and a HMM of the Equity Market Return. Dissertation defended 2011: Dec. 2. BlackRock Asset Management, Hong Kong.

11) Yu Chen. Regime-Switching Models in Stock Market Returns and the Economic Cycle. Business Statistics Area-of-Inquiry, PhD in Business Administration, UIC. Defended March, 2012. BNYConvergX, Iselin, NJ.

Dissertation Committees

Doctoral (partial list)

John Burt, GSIA, Carnegie-Mellon University (Adviser: Don Gaver), 1970. Dissertation on simulation by antithetic variates.

Bader Eldeena Hafeez, IE (Adviser: Floyd Miller), UIC, 22-Dec-1999.

Naim Ahmed, IE (Adviser: Kyuil Kim), UIC, 3-May-2000. Hired by Motorola.

Kwan Hur, Biostatistics, UIC (Employed by Hines VA Hospital, Chicago)

Arsen Grigoryan, IE, UIC (Adviser: David He), 2003.

John Stovall, Managerial Studies, CBA, UIC, 2004 (Adviser: Gerry Hills). Georgia Southwestern State University, Americus, GA.

Jun Liu, Business Statistics, CBA, UIC (Adviser: Rong Chen), 2005. Assistant Professor of Quantitative Methods, College of Business Administration, Georgia Southern University, Statesboro, GA.

Sen-Lin Wu, MIS, CBA, UIC (Adviser: Rong Chen)

Chen Chen, Business Statistics, CBA, UIC, 2005. Adviser: Rong Chen. Senior Analyst, Structured Equity, Allegiant Asset Management Co., Chicago.

Amir Niknejad, MSCS, UIC, 2005. Adviser: Shmuel Friedland. Assistant Professor, College of Mt. St. Vincent, Riverdale, NY.

Airong Cai, PhD in Bus Adm (Business Statistics), 2007. Adviser: Rong Chen. Principal Statistician, DemandTec, San Carlos, CA.

Beichen Liang, PhD in Bus Adm (Marketing), UIC (Adviser: Joseph Cherian), 2007. Assistant Professor, East Tennessee State University.

Zhixin (Richard) Kang, PhD in Bus Adm (Business Statistics), UIC (Adviser: Lan Zhang), 2008. Assistant Professor, University of North Carolina – Pembroke.

Christina Outlay, PhD in MIS, UIC. Defense 2008: July 31

David Henderson, PhD in Bus Adm (HRM), UIC (Adviser: Bob Liden), 2009. Assistant Professor of HRM, London School of Economics.

Cheryl Ann Luczak. PhD in Bus Adm (Marketing), UIC. Co-advisers: Gerry Hills and Joe Cherian. Defense in 2009.

Yuliya Yurova, PhD in Bus Adm (Business Statistics), Adviser: Houston Stokes. Defense 2009: May 19

Chen Ye, PhD in MIS, UIC. Defense 2009: July 15

Timothy Muckle. PhD in Ed Psych, UIC. Adviser: Geo. Karabatsos. Defense 2009: Dec. 10.

Qiang Zhen, PhD in MSCS, UIC. The Sojourn Time Distribution in Processor-Sharing Queues. Adviser: Chas. Knessl. Defense 2010: April 15.

David St. John. PhD in MSCS, UIC. Statistical Analysis of the MACS (Moving-Average Convergence and Divergence) Technical Stock Trading Strategy. Co-Advisers: Chas. Kness. and Dal Rosenthal . Defense 2010: April 27.

Poornima Krishnan, PhD in MIS, UIC. Outsourcing of ISD Projects. Adviser: Ranganathan Chandrasekaran. Defense: 2010: May 3.

Sharmin Attaran, PhD in Bus Adm (Marketing), UIC. Consumer-CompanypIdentity Congruence – Glues and Stressors. Adviser: Joe Cherian. Defense 2010: May 7.

Fannu Hu. PhD in Mathematics, Statistics, & Computer Science, UIC. Options Pricing: Application of Ray Methods and Singular Perturbatins. Adviser: Chas. Knessl. Defense 2010: June 30.

Yanmin Liu. PhD in Mathematics, Statistics, & Computer Science, UIC. Bayesian look ahead sampling methods to allocated up to M observations among k populations. Adviser: Klaus Miescke. Defense 2011: Oct. 17.

Mr. Ken Akira Fujimoto.
PhD in Ed Psych.
George Karabatsos (Ed Psych), Chair; Don Hedeker (Biostat), Ryan Martin (MSCS), Stan Sclove (IDS), Everett Smith (Ed Psych)
Proposal: 2012: March 28

Masters (partial list)

HiangKiat Jason Tan, Pharmacy, UIC, 2004. Adviser: Swu-Jane Liu

Teaching Experience (Courses Taught)

MATHEMATICS: calculus and analytic geometry (large lecture course); calculus for business; college algebra (large lecture course); differential equations; finite mathematics for business; mathematical modelling; trigonometry.

OPERATIONS RESEARCH: Undergraduate--decision analysis; probability models; introductory management science, introductory operations management.. **Graduate** (MBA)--decision models and information systems

STATISTICS: Undergraduate--applied statistical methods (pre-calculus); applied statistical methods (post-calculus); cluster analysis; data mining; decision analysis; mathematical statistics; probability; quality and productivity improvement using statistical methods; sampling techniques; time series analysis. **Graduate**--analysis of variance; applied statistical methods; clustering and factor analysis; statistical analysis in educational research; design of experiments; linear statistical models; multivariate analysis; research methodology; statistical quality control and assurance; structural equation modeling; time series analysis.

Editorial Work

Editorship(s)

Associate Editor, *Journal of Statistical Theory and Applications* (2005 - 2012)

Refereeing

Referee or Reviewer for statistical and mathematical journals, including *Journal of the American Statistical Association, The American Statistician, Journal of Applied Statistics, Annals of Statistics, British Journal of Mathematical and Statistical Psychology, Journal of Classification, Communications in Statistics, Computational Statistics and Data Analysis, Econometrica, Journal of Econometrics, Family Relations, IEEE Transactions on Pattern Analysis and Machine Intelligence, Annals of Operations Research, Journal of Statistical Theory and Applications (Assoc. Ed.), Mathematical Reviews, Psychometrika, Statistics and Probability Letters.*

Reviewing

National Science Foundation (Statistics & Probability Program, Economics Program, other), other government agencies; NSERC (Natural Sciences and Engineering Research Council of Canada); promotion cases at other universities.