

Curriculum Vitae

Arjun K. Gupta

Distinguished University Professor
Department of Mathematics and Statistics
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Academic Degrees

Ph.D., Purdue University, 1968
M.S., First Class First Rank, Poona University, India, 1959
B.S. (Hons.), First Class First Rank, Poona University, India, 1958

Academic Positions

Teaching (Research) Positions:

Visiting Professor, National University of Kaohsiung, Taiwan, Summer 2008
Visiting Professor of Biostatistics, University of Michigan, Spring 2008
Visiting Research Professor, National Tsing-Hua University, Taiwan, Summer 2004.
Guest Professor, CIMAT, Mexico, Summer 2001.
Visiting Research Professor, National Sun Yat-Sen University, Taiwan, Summer 2000.
Visiting Research Professor, University of Toledo, Spring 2000.
Distinguished University Professor, Bowling Green State University, 1995- .
Visiting Professor of Biostatistics, University of Michigan, Fall 1991
University Grants Commission, Visiting Fellow, University of Rajasthan, Fall 1983
Guest Professor, IMECC, University of Campinas, Brazil, Summer 1980
Professor of Mathematics and Statistics, Bowling Green State University, 1978-present
Visiting Associate Professor of Statistics, Ohio State University, Spring 1978
Associate Professor of Mathematics, Bowling Green State University, 1976-78
Visiting Scientist, University of Windsor, Canada, Summer 1974
Visiting Research Associate, Aerospace Research Laboratories, Wright Patterson Air Force
Base, Summer 1972
Assistant Professor Statistics, University of Michigan, 1971-76
Assistant Professor of Mathematics, University of Arizona, January 1968-71
Teaching/Research Assistant, Purdue University, 1963-67
Assistant Professor of Statistics, Banaras Hindu University, India 1962-63
Assistant Professor of Statistics, Agra University, India, 1962

Administrative Positions:

Chair, Department of Mathematics and Statistics, Bowling Green State University, 1985-87
Graduate Advisor, Department of Mathematics and Statistics, Bowling Green State
University, 1978-81

Non-academic Positions

Institutional Review Board, Ohio Academy of Science, 2006-
International Biographical Center Advisory Council (England), 1999-
ABI (U.S.A.) Research Board of Advisors, 1996-
United Nations Statistical Consultant, Ghana (West Africa), Fall 1987
Editorial Consultant, *Mathematical Reviews*, 1971-76
Demonstrator at "Oil India," 1960

Learned Societies

Ohio Academy of Science (Fellow, 2001)
American Statistical Association (Fellow, 1989)
Royal Statistical Society of England (Fellow, 1970)
Indian Statistical Association (Life Member, 1970)
Institute of Statisticians (Fellow, 1980)
International Statistical Institute (Member, 1984)
Bernoulli Society (Member, 1990)
Institute of Mathematical Statistics (Member, 1966)

Honors

Faculty Distinguished Service Award, Bowling Green State University, 2004.
Distinguished University Professor, Bowling Green State University, 1995-
Olscamp Research Award, Bowling Green State University, 1990.
Elected Fellow of the Ohio Academy of Science, 2001.
Elected Fellow of the American Statistical Association, 1989.
Elected Member of the International Statistical Institute, 1984.
Elected Fellow of the Institute of Statisticians, 1980.
Elected Fellow of the Royal Statistical Society of England, 1970.
Honors in Statistics in B.Sc. with special paper of Statistical Quality Control.
Merit Scholarship of Poona University, 1958.
All India Mathematical Society Golden Jubilee Award, 1959.
Banaras Hindu University Fellowship for Graduate Study Abroad, 1963-65.
U.S.S.R. Scholarship for Graduate Study, 1962.
Listed in (i) American Men and Women in Science, (ii) Personalities of the West and Midwest,
(iii) Consultants (AMWS), (iv) Dictionary of International Biography (England), (v) The National
Register of Forensic Experts, Litigation Consultants and Legal Support Specialists, (vi) Who's Who in
America (Midwest), (vii) 1983 Forensic Services Directory, (viii) Men of Achievement 1990,
(ix) Who's Who in Science and Engineering, 1991, (x) Who's Who Among Asian Americans, (xi) Who's
Who in America, (xii) Asia/Pacific Who's Who, (xiii) Outstanding People of the 20th Century, (xiv)
Asian/ American Who's Who, (xv) Asia - Men & Women of Achievement, (xvi) International Directory
of Distinguished Leadership, (xvii) Afro-Asian Who's Who
Pi Mu Epsilon (National Mathematics Honorary)

Administrative and Other Services

(Excluding 170 plus invited talks given at various colloquia and universities and professional meetings.)

On forty-six examining committees for M.S.; thirty-eight Ph.D. preliminary, and forty-two Ph.D.
finals.
Examiner of many theses from Canada, Brazil, India, Iraq, South Africa, United States of America,
Taiwan.
Master's Doctoral Committee, Department of Statistics, The University of Michigan, 1971-76.
Engineering Mathematics Statistics Committee, The University of Michigan, 1971-75.
On the panel of American Mathematical Society to answer inquiries requesting information about
mathematical and applied statistics.
Graduate Committee, Department of Mathematics and Statistics, Bowling Green State University,
1976-78.
Faculty Research Committee, Bowling Green State University, 1976-77.

Referee of the *Journals of American Statistical Association, Indian Statistical Association, Multivariate Analysis, Canadian Statistical Association, and the Annals of Statistics, Communications in Statistics, International Journal of Science and Technology, Technometrics, etc.*

Abstractor for ASQC (American Society for Quality Control) and reviewer of papers and research proposals from Canada and the United States of America.

Chairman, Advisory Committee, Statistical Consulting Center, Bowling Green State University, 1977-78

Chairman, Graduate Committee and Graduate Advisor, Department of Mathematics and Statistics, Bowling Green State University, 1978-81.

Chairman, Statistics Program Committee, Bowling Green State University, 1979-82, 1993-95.

Visiting Lecturer, SIAM (Society for Industrial and Applied Mathematics), 1981-83.

Representative to the Council of Chapters, ASA, 1985-present.

Committee on National and International Standards, American Statistical Association, 1985-87.

Visiting Lecturer, COPSS (Committee of Presidents of Statistical Societies), 1988-1990.

Committee on Continuing Education, American Statistical Association, 1989-91.

Committee on International Relations, American Statistical Association, 1991-93.

Graduate Council 1996-98, 2008-

Faculty Senate 2007 -

Human Relations Commission 2007-

Chair, Statistics Committee, Bowling Green State University, Department of Mathematics and Statistics, 2003-2005, 2008-

Editorial Activities

Advisory Board, *Journal of the School of Business Administration*, 2008-

Editor, *Journal of Probability and Statistics*, 2008-

Advisory Editor, *European Journal of Pure and Applied Mathematics*, 2007-

Honorary Editor, *Journal of Distribution Theory*, 2007-

Series Editor, *Statistics Textbooks and Monograph*, Chapman & Hall/CRC, 2006-

Editorial Advisor, *Journal of Probability and Statistical Science*, 2004- .

Associate Editor, *Test*, 2005-

Editor, *International Journal of Theoretical and Applied Mathematics*, 2005-

Associate Editor, *Revista Matematica UCM*, 2004- .

Associate Editor, *Journal of Applied Statistical Science*, 2003- .

Associate Editor, *Pacific Journal of Intelligent Technologies and Applied Statistics*, 2004- .

Associate Editor, *Ohio Journal of Science*, 2001- .

Associate Editor, *Random Operators and Stochastic Equations*, 1994- .

Associate Editor, *Communications in Statistics*, 1993- .

Associate Editor, *Journal of Statistical Planning and Inference*, 1998- 2000.

Editor (U.S.A.), *Statistical Theory and Methods Abstracts*, 1990-95.

Member, International Editorial Board, *Communications in Statistics*, 1986-93.

Member, Board of Editors, *ABACUS*, 1985-92.

Editorial Consultant, *Mathematical Reviews*, 1973-76.

Member, Board of Editors, *Creations in Mathematics*, 1972-2001.

Collaborator of *Mathematical Reviews* and *Zentralblatt für Mathematik*, 1970- .

Started Technical Report Series in the Department of Mathematics and Statistics, Bowling Green State University, 1977.

Organizational Activities

Organizer (with Balakrishnan): Conference on Statistical Distributions and Applications, April 15-16, 2006, Bowling Green, Ohio.

Organizer (with Balakrishnan): Conference on Order Data and Applications, May 15, 2006, Bowling Green, Ohio.

Organizer (with Patil), Ninth Lukacs Symposium: Frontiers of Environmental and Ecological Statistics for the 21st Century, April 23-25, 1999, Bowling Green, Ohio.

Organizer (with Girko), Sixth Lukacs Symposium: Multivariate Statistical Analysis and Theory of Random Matrices, March 29-30, 1996, Bowling Green, Ohio.

Organizer (with Bozdogan and others), The Frontiers of Statistical Modeling: An Informational Approach, May 24-29, 1992, Knoxville, Tennessee.

Organizer (with Bozdogan and Ramirez), Advanced Symposium on Multivariate Statistical Modeling and Data Analysis, James Madison University, Harrisonburg, May 15-16, 1986.

Director and organizer of National Science Foundation Research Conference on Jackknife and Bootstrap Methods in Statistics, June 16-20, 1980.

Founder of Northwest Ohio Chapter of American Statistical Association (1978).

Chairman and Local Organizer, Classification Society Annual Meeting, University of Michigan, Ann Arbor, April 29-30, 1974.

Local Arrangements Committee, Third International Symposium in Multivariate Analysis, Dayton, June 1972.

Faculty Advisor; also founder of India Students Association, University of Arizona (1968-71), University of Michigan (1973-76), Bowling Green State University (1977-87).

Foreign Assignments

Taiwan: National University of Kaoshing, Summer 2008.

Taiwan: National Tsing-Hua University, Visiting Research Professor, Summer 2004.

Switzerland: 3e Cycle of Mathematics and Statistics, October, 2003.

Japan: Japan Society for the Promotion of Science, November, 2002.

Taiwan: National Sun Yat-sen University, Guest Professor, Summer 2000.

Mexico: CIMAT, Guest Professor, October, 2000; Summer 2001.

China: Member of Ambassadorial Delegation (Statistics), lecture & tour, October, 1997.

Canada: University of Windsor, Visiting Scientist, 1974.

Iraq: Government of Iraq invited me to evaluate their statistics program; visited all their universities and lectured. December, 1979.

Brazil: UNICAMP, IMECC, Guest Professor, Summer 1980.

India: University Grants Commission Senior Research Fellow, University of Rajasthan, Fall 1983.

Ghana: United Nations Statistical Consultant, Visiting Ghana and Togo, Fall 1987.

Keynote Addresses

1. "International Conference on Multivariate Statistical Modeling and High Dimensional Data Mining", June 19-23, 2008, Kayseri, Turkey.
"Ubiquitous Gaussian Distribution and Modeling Skewness"
2. Annual Meeting of Taiwan Intelligent Technologies & Applied Statistics, June 18-20, 2004, National Chungcheng University, Jia-I, Taiwan.
"Modeling Skewness: Normal Case"
3. 3e Cycle Romand de Statistique et Probabilites Appliquees, Oct. 3, 2003, University of Neuchatel, Switzerland.
"Random Matrices in Statistics and Their Applications"

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4. CUNY Spring 2002 Faculty Development Workshop: Featured speaker (keynote address), December 10-11, 2002, New York.
"Information Statistical Approach for Temporal Spatial Data Analysis"
5. Annual Meeting of "South African Statistical Association", November 3-5, 1999, Durban, South Africa.
"Elliptically Contoured Models in Statistics"

Short Courses/Workshops/Tutorials

Bemes Cycles de Mathematique et de Statistique, Switzerland, October 3, 2003. Workshop on "Random Matrices and Their Applications"

Center for Integrated Transmission and Exploitation, Air Force Research Center, Rome, Ohio.
(i) April 2, 2003. Workshop "Change Point Analysis in Communication"
(ii) June 4, 2004. Workshop "Change Point Problem"

CiMAT, Mexico, March 10-13, 2003. Workshop on "Distribution Theory and Random Matrices"

Information Division, Air Force Research Laboratory, Rome, Ohio, September 11, 2000. Workshop "Detection and Estimation of Abrupt Changes"

Air Force Research Laboratory, Rome, NY, (2002) Tutorial on Change-Point Analysis.

CIMAT, Guanajuato, Mexico (2000), Short Course on Discriminant Analysis, (2001) Multivariate Analysis.

SASA, Durban, South Africa (1999): Workshop on Statistical Analysis of the Multiple Change-Points Problem. Gave Keynote Address at the Annual Statistics Meetings.

CUNY Faculty Development Workshop, New York (1999): Information Criterion and Change Point Detection for Data Analysis.

ERM, Medelline, Colombia (1999): Short Course in Inference About Change-Points.

STAT-A-MATRIX, New Jersey (1984): Analysis of Categorical Data.

University of Rajasthan, Jaipur, India (1983): Multivariate Tests.

UNECA, University of Ghana (1981): Multivariate Methods, Sampling Techniques.

UNICAMP, Campinas, Brazil (1980): Advanced Topics in Multivariate Statistical Analysis.

USAF, STRATCOM Center, Fort Hauchuca, Arizona (1970): Statistical Methods for Engineers.

Research Funding

NSF, Air Force, NATO, UN, OBOR

Invited Papers

1. Conference on Reliability and Biometry, July 9-27, 1973, Florida State University, Tallahassee. Paper with Basu, "Classification Rules for Exponential Populations."
2. N.S.F. Regional Conference on Multivariate Statistical Analysis, June, 1974, University of Alabama, invited participants.
3. Conference on the Theory and Application for Reliability with emphasis on Bayesian and Non-parametric Methods, December 15-18, 1975, University of Southern Florida, Tampa. Paper with Basu, "Classification Rules for Exponential Populations: Two Parameter Case."
4. International Conference on Optimization in Statistics, December 19-21, 1971, Bombay, India. Paper with Rohatgi, "Estimating the Restricted Mean of a Continuous Population."

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5. International Conference on Developing Mathematics in Third World Countries, March 6-9, 1978, University of Khartoum, Sudan. "Random Thoughts on Developing Statistics in the Third World Countries."
6. First Australian Mathematical Convention, Mary 15-19, 1978, University of Canterbury, New Zealand. "Testing for Contamination."
7. International Symposium on Multivariate Statistical Analysis and its Applications, July 21-23, 1978, Campinas, Brazil, "On a Multivariate Statistical Classification Model."
8. Meeting on "Multivariate Statistics Analysis," November 26-December 2, 1978, Mathematische Forschungsinstitut, Oberwolfach, West Germany. "Statistical Classification: A Progress Report."
9. Felicitaton Volume of the Journal of Indian Statistical Association presented to Professor Huzurbazar on his 60th birthday on September 15, 1979. "On the Expansion of Bivariate Gamma Distribution."
10. Sixth Conference on Probability Theory, September 10-15, 1979, University of Brasov, Romania. "Orthogonal Polynomials and Truncated Multivariate Distributions."
11. Meeting on "Multivariate Statistical Inference," October 5-7, 1979, University of Dalhousie, Halifax, Canada. "On a Multivariate Statistical Classification Model."
12. Institute of Statistics, Belgrade, Yugoslavia, September 16-17, 1979. "On Statistical Classification Problem."
13. Statistics in Iraq, December 10-25, 1979. Two papers were given (one general and one technical): "Statistics: transformation of ignorance into knowledge" and "Multivariate Statistical Classification Models."
"Preparations for College Teaching in Statistics."
15. The Analysis of Categorical Data, special issue of *Communications in Statistics*, 1983. "Models for Reflecting Prior Beliefs of Association in Two-way Contingency Tables" (with Albert).
16. "Multivariate Statistical Techniques in Chemometrics." Peer Commentary in *Multivariate Chemometrics and QSAR*, by P. N. Mager, John Wiley, 1983.
17. International Statistical Conference, Athens-Delphi, Greece, June 27-July 1, 1983. "On Classification by Multiple Observations."
18. International Congress of Biomathematics, Buenos Aires, Argentina, September 10-14, 1984. "Asymptotic Theory of Testing for Contamination."
19. III International Meeting of Statistics, Bilbao, Spain, August 7-9, 1985. "On a Repeated Measurements Model in Discriminant Analysis."
20. Special volume of *Computers and Mathematics with Applications* on Discriminant Analysis, 1986. "On a Classification Rule for Multiple Measurements."
21. Advanced Symposium on Multivariate Statistical Modeling and Data Analysis, James Madison University, May 15-16, 1986. "Distribution of Likelihood Criterion and Box Approximation."
22. International Conference on Mathematical Statistics, August 29-September 2, 1988, Olsztyn, Poland. "Two Factor Hierarchical Model for Classification."
23. International Conference on Computing and Information, McMaster University, Canada, April 24-29, 1989. "Statistical Classification and Linear Models."
24. International Vilnius Conference on Probability Theory and Mathematical Statistics, June 26-July 1, 1989, Vilnius, U.S.S.R. "Estimation of MANOVA Eigenvalues."
25. International Conference on "Recent Developments in Probability and Statistics," December 22-24, 1990, New Delhi, India. "Testing of Homogeneity of Diagonal Blocks with Blockwise Independence."
26. Third International Conference on Environmetrics, October 9-10, 1991, Madison, Wisconsin. "Multivariate Statistical Methods in Environmetrics."

27. First International Triennial Calcutta Symposium on Probability and Statistics, December 27, 1991-January 1, 1992, Calcutta, India. "A New Class of Matrix Variate Elliptically Contoured Distributions."
28. Seventh International Conference on Multivariate Analysis, May 5-9, 1992, Penn State University. "Multivariate Nonnormal Statistics in Site Characterization and Evaluation."
29. First US/Japan Conference on The Frontiers of Statistical Modeling, May 24-29, 1992, University of Tennessee. "AIC-replacements for some multivariate tests of homogeneity with applications in multisample clustering and feature selection."
30. International Symposium on Optimization and Statistics, December 14-17, 1992, Aligarh Muslim University, India. "Information Theoretic Approach to Some Multivariate Tests of Homogeneity."
31. International Conference on Stochastic Modeling, January 10-12, 1994, New Delhi, India. "A Model for Familial Data and Its Analysis."
32. Second International Triennial Calcutta Symposium on Probability and Statistics, December 29, 1994-January 2, 1995, Calcutta, India, "AIC and Some Multivariate Tests of Homogeneity."
33. International Conference on "Multidimensional Statistical Analysis and Theory of Random Matrices," March 29-30, 1996, Bowling Green State University. "Multivariate elliptically contoured linear models and some aspects of the theory of random matrices."
34. International Conference on "Statistical Inference, Combinatorics and Related Areas," December 18-21, 1997, Banaras Hindu University, "Occam's razor via information theory."
35. International Conference on Operational Research for a Better Tomorrow, December 24-26, 1998, Delhi, India, "Information Theoretic Approach to Multiple Change-Point Analysis."
36. Frontiers of Environmental and Ecological Statistics for the 21st Century, April 23-25, 1999, Bowling Green State University, "Multianalytic Tests Using Composite Samples."
37. VII ERM Conference, August 23-27, 1999, Medellin, Colombia, "Nonnormal Models in Statistics."
38. SASA Conference, November 3-5, 1999, Durban, South Africa, "Elliptically Contoured Models in Statistics." Keynote Address.
39. Annual Conference of "Intelligent Technologies and Applied Statistics", June 19-20, 2004, Jia-I, Taiwan, "Modelling Skewness: Normal Case". Keynote address.
40. 2nd International Conference on Soft Methods in Probability and Statistics, Sept. 2-4, 2004, Oviedo, Spain. "Phi-Residual Based on Minimum Phi-Divergence Estimator in the Loglinear Model of Symmetry".
41. "Skew-Elliptical Distribution and Their Application: A Journey Beyond Normality" (paper with Farias and Molina) in "The closed skew-normal distribution", 2004.
42. Conference on Statistical Distribution and Applications, April 15-16, 2005, Bowling Green, "Modeling Non-Symmetrical Data".
43. XV International Symposium on Mathematical Methods Applied to Science, San Jose, Costa Rica, Feb. 21-24, 2006, "A non-Gaussian model with applications to stock market".
44. Third International Conference on Research and Education in Mathematics, April 10-12, 2007, Kuala Lumpur, Malaysia, "Information Criteria and Detection of Change".
45. International Conference on Multivariate Statistical Modeling and High Dimensional Datta Mining, June 19-23, 2008, Kayseri, Turkey, "Ubiquitous Gaussian Distribution and Modeling Skewness".

Ph.D. Students at BGSU

- J. Tang (1981) "Exact Distribution of Certain General Test Statistics In Multivariate Analysis"
Employment: 1. Marquette University; 2. Bell Communications Lab; 3. Purdue University (Professor)
- O. S. Adegboye (1981) "On Testing Against Restricted Alternatives in Gaussian Models"
Employment: Professor/Dean of Science, University of Ilorin
- W. R. Javier (1982) "On the Distribution of Certain Random Matric Variates and Their Functions"
Employment: Dean, Statistical Center, University of the Philippines
- D. K. Nagar (1985) Partially supervised "Exact Distribution of Certain Likelihood Ratio Test Criteria"
Employment: University of Antioquio, Colombia.
- T. P. Logan (1986) "Discriminant Analysis Using Multiple Observations"
Employment: 1. Assistant Professor, University of Toledo; 2. Consultant
- C. Chao (1989) "Inference About Covariance Matrices Under Repeated Measurements Model"
Employment: Associate Professor, Jacksonville State University
- S. Ofori-Nyarko (1989) "Improved Estimation of Covariance Matrix, the Precision Matrix, and the Generalized Variance"
Employment: University of Wisconsin, Stevens Point
- A. Amey (1989) "Robustness Study of Certain Multivariate Test Criteria When Sampling From a Contaminated Normal Model"
Employment: 1. Bowling Green State University 2. University of the North, South Africa
- T. Varga (1990) "Elliptically Contoured Matrix Variate Distribution: Stochastic Representation and Inference"
Employment: 1. Rose-Hulman Institute 2. AB-AEGON Insurance Co.
- B. Johnson (1992) "Asymptotic Tests for Equality of Correlation Matrices"
Employment: Vice President (Research) NFO Research, Inc., Toledo, Ohio
- D. Song (1994) "Generalized Spherical and Liouville Distributions"
Employment: 1. Ohio Northern University 2. Case Western Reserve University
- J. Chen (1995) "Inference About the Change Points in a Sequence of Gaussian Random Vectors Using Information Criterion"
Employment: University of Missouri – Kansas City
- Y. Wang (1995) (co-chair) "Characterization Based on Conditional Structures and Their Statistical Applications"
Employment: University of Rochester
- G. Rempala (1996) "Limit Theorems for Random Permanents and U-Statistics of Infinite Order with Applications to Statistical Inference"
Employment: University of Louisville
- A. Ramanayake (1999) "Epidemic Change Point and Trend Analysis for Certain Statistical Models"
Employment: University of Wisconsin–Oshkosh
- J. Carson (2000) "One-Sided Multivariate Hypothesis Testing Using Extensions of Hotelling's T-Squared"
Employment: IT Corporation

- J. Sanqui (August 2003) "Characterization and Statistical Inference for the Skew Normal Distribution" (co-chair)
Employment: Appalachian University
- S. Harrar (August 2004) "Linear Models Under Non-Normality"
Employment: South Dakota State University
- J. Xu (August 2004) "Robustness Study of Some Multivariate Tests in Generalized Linear Models"
Employment: University of California-Riverside
- K. Jagannathan (August 2005) "Statistical Inference and Goodness-of-Fit Tests for Skewed Double Exponential Models"
Employment: Coastal Carolina University
- D. Kasturiratna (August 2006) "Assessing the Distributional Assumptions in One-Way Regression Model"
Employment: Northern Kentucky University
- D. Akdemir (expected 2009)
- G. Oduncuolgu (expected 2010)
- N. Nguyen (expected 2010)
- M. A. Aziz (expected 2011)

Books

1. Gupta, A. K. and Varga, T. *Elliptically Contoured Models in Statistics*. Kluwer Academic Publishing Group, Dordrecht, 1993. x+327 pp. ISBN 0-7923-2115-4.
2. Gupta, A. K. and Nagar, D. K. *Matrix Variate Distributions*. Chapman & Hall/CRC, Boca Raton, FL, 2000. x + 367 pp. ISBN 1-58488-046-5.
3. Chen, Jie and Gupta, A. K. *Parametric Statistical Change Point Analysis*. Birkhauser, Boston, MA, 2000. viii + 184 pp. ISBN 0-8176-4169-6.
4. Gupta, A. K. and Varga, T. *An Introduction to Actuarial Mathematics*. Kluwer Academic Publishers, Dordrecht, 2002. x + 350 pp. ISBN 1-4020-0460-5.
5. Sy, B. and Gupta, A. K. *Information-Statistical Data Mining*. Kluwer Academic Publishers, Boston, MA, 2004. xxii + 289 pp. ISBN 1-4020-7650-9.
6. Gupta, A. K. (ed.) *The Analysis of Categorical Data*. Special Issue of *Communications in Statistics – Theory and Methods*, Volume 12, Number 11, Marcel Dekker, New York, 1983.
7. Gupta, A. K. (ed.) *Advances in Multivariate Statistical Analysis*. D. Reidel Publishing Co., Dordrecht, 1987. xvi + 389 pp. ISBN 90-277-2531-4.
8. Bozdogan, H. and Gupta, A. K. (eds.) *Multivariate Statistical Modeling and Data Analysis*. D. Reidel Publishing Co., Dordrecht, 1987. x + 189 pp. ISBN 90-277-2592-6.
9. Bozdogan, H., Gupta, A. K. et al. (eds.) *Theory and Methodology of Time Sieres Analysis, Vol. 1*. Kluwer Academic Publishers, Dordrecht, 1994. ISBN 0-7923-2597-4.
10. Bozdogan, H., Gupta, A. K. et al. (eds.) *Multivariate Statistical Modeling, Vol. 2*. Kluwer Academic Publishers, Dordrecht, 1994. ISBN 0-7923-2598-2.
11. Bozdogan, H., Gupta, A. K. et al. (eds.) *Engineering and Scientific Applications of Informational Modeling, Vol. 3*. Kluwer Academic Publishers, Dordrecht, 1994. ISBN 0-7923-2599-0.
12. Gupta, A. K. and Girko, V. L. (eds.) *Multidimensional Statistical Analysis and Theory of Random Matrices*. VSP, Utrecht, 1996. xii + 386 pp. ISBN 90-6764-208-8.
13. Gupta, A. K. and Nadarajah, S. (eds.) *Handbook of Beta Distribution and Its Applications*. Marcel Dekker, New York, 2004. ISBN 0-8247-5396-8.
14. Kabe, D. G. and Gupta, A. K. *Experimental Designs: Exercises and Solutions*. Springer, New York, 2007. ISBN 0-387-33892-6.
15. Nagar, D. K. and gupta, A. K. *Contributions to the Complex Matrix Variate Distribution Theory*. Universidad de Antiquia, Medellin, Colombia, 2008.
16. Gupta, A. K. and Nagar, D. K. *Complex Matrix Variate Distributions (under preparation)*

List of Publications

1. On the distribution of the second elementary symmetric function of the roots of a matrix (with Pillai), *Ann. Inst. Statist. Math.*, **19**(1967), 167-179.
2. On the noncentral distribution of the second elementary symmetric function of the roots of a matrix (with Pillai), *Ann. Math. Statist.*, **39**(1968), 833-840.
3. Some central and noncentral distribution problems in multivariate analysis, Department of Statistics, Purdue University, Mimeo Series No. 139, Ph.D. Dissertation (January 1968).
4. On the exact distribution of Wilks' Criterion (with Pillai), *Biometrika*, **56**(1969), 109-118.
5. Evaluation of coefficients $g^{\delta\kappa}$, η , ρ , *Mathematica*, **12**(35)(1970), 299-304.
6. Tables of Percentage Points of Wilks' Criterion, have been included in the *Biometrika Tables for Statisticians, Vol. II*, edited by E. S. Pearson and Ho. O. Harley, (1972), Cambridge University Press.
7. On a special integral, *Studia*, **15**(1970), 77-80.
8. Noncentral distribution of Wilks' statistic in MANOVA, *Ann. Math. Statist.*, **42**(1971), 1254-1261. (Given at the 24th meeting of the Canadian Mathematical Congress at the University of Alberta, June, 1970.)
9. Some pseudo-determinants useful in distribution theory, *Bull. Soc. Math. Belg.*, **23**(1971), 167-175.
10. Distribution of Wilks' likelihood ratio criterion in the complex case, *Ann. Inst. Statist. Math.*, **23**(1971), 77-87. (Given at the 121st meeting of I.M.S. in Iowa City and also at the International Math. Congress Meeting, 1970, Nice, France.)
11. On a Pascal's triangle of the third kind, *Biom. Z.*, **15**(1973), 389-392. (Given at the 138th meeting of the I.M.S. in Ithaca.)
12. On a test for reality of the covariance matrix of a complex Gaussian distribution, *J. Statist. Comput. Simul.*, **2**(1973), 333-342. (An earlier version of this paper was given at the 129th meeting of the I.M.S., University Park.)
13. Some new classification rules for c univariate normal populations (with Govindarajulu), *Canad. J. Statist.*, **1**(1973), 139-157. (Given at the First International Conference on Pattern Recognition, Washington, October, 1973.)
14. Classification rules for the exponential populations (with Basu), *Reliability and Biometry*, (Proceedings of the conference held at Florida State University, F. Proschan and R. J. Serfling, eds.), SIAM, (1974), 637-650.
15. Generalized hidden hexagon squares, *Fibonacci Quart.*, **12**(1974), 45-46.
16. On a "square" functional equation, *Pacific J. Math.*, **50**(1974), 447-454. (Given at the Annual Meeting of the Statistical Science Association of Canada, Kingston, May (1973).)

17. On a stochastic inequality for the Wilks' statistic, *ann. Inst. Statist. Math.*, **27**(1975), 341-348. (Given at the 128th meeting of the I.M.S., Las Vegas.)
18. Asymptotic distribution of the determinants of some random matrices (with Krishnaiah and Chattopadhyay), *Comm. Statist.*, **4**(1975), 33-47. (Given at the 140th meeting of the I.M.S., Iowa City.)
19. Generalization of a "square" functional equation, *Pacific J. Math.*, **57**(1975), 419-422.
20. Distribution of the quotient of two Hotelling's T^2 -variates (with Govindarajulu), *Comm. Statist.*, **4**(1975), 449-453. (An earlier version of this paper was given at the 1975 A.S.A. Annual Meeting, St. Louis.)
21. A classification rule based on permutations of multivariate observations (with Kim), *Bull. Internat. Statist. Inst.*, (Proceedings of the 40th Session of IS, Warsaw) **46**, No. 3 (1975), 327-329.
22. Recurrence relations for the moments of truncated multivariate observations (with Tracy), *Comm. Statist.*, **5**(1976), 855-865.
23. Review of Cluster Analysis: A survey by S. D. Benjamin and P. L. Odels, Springer Verlag, *Math. Reviews*, **51**(1976), 638-639.
24. Correction to "On a stochastic inequality for the Wilks statistics" (*Annals of the Institute of Statistical Mathematics*, **27**(1975), 341-348), *Ann. Inst. Statist. Mat.* **28**(1976), 123.
25. Nonnull distribution of Wilks' statistic for MANOVA in the complex case, *Comm. Statist.*, **B**(1976), 177-188. (Given at the 122nd meeting of I.M.S., Monterey, California.)
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7. A note on randomization in multivariate analysis of variance.
8. Nonnull distribution of four criteria for MANOVA in the complex case (with Conradie).
9. Limiting distribution of the Jackknife statistics for canonical correlations under nonnormal populations (with Nagao).
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11. Inequalities for the gamma function, Problem 75-11, *SIAM Review*, **18**(1976), 496-497.
- 12-61. Review of seventy(+) papers written for *Math. Reviews* and *Zentralblatt für Mathematik*.
- 62-149. About eighty(+) abstracts published in *Annals of Mathematical Statistics*, *IMS Bulletin*, *Notices of American Mathematical Society*, *American Society for Quality Control*, *ISI Proceedings*, etc.

Statistical Consulting Experience

Services to the Statistical Laboratory for providing consultation of the graduate students and members of the research and teaching staff of the University of Arizona (1968-71) and the University of Michigan (1971-76). Most of those who came for help were working on various kinds of research projects in social, agricultural, business, environmental sciences, psychology, and education. This need had been reflected by my representation on many Ph.D. committees of students in those fields.

The paper #28 (see resume) was the outcome of the ISR-Statistics Workshop. This workshop was designed to solve problems that were faced by researchers at the Institute of Social Research at the University of Michigan. In their computer center section, I was instrumental in modifying the VARIANCE ANALYSIS, MULTIVARIATE (MANOVA) program 1972.

Consulted for the Marketing Division of Motorola, Semi-Conductor Products, Inc., Phoenix, 1969.

Consulted for the Holden-Day, Inc. Publishers, 1973.

Editorial (Statistical) Consultant, *Mathematical Reviews*, 1973-76.

Consulted for the Lima Public School System, HEW vs. Lima Schools Desegregation Case, Ohio, 1977.

Statistical Consultation for the Bowling Green State University Computational Services Center, 1976-77.

Statistical Consultation for the Ohio Medical College, Department of Epidemiology, 1976-78; Department of Cost Containment, 1978-80.

Research Associate, Statistical Consulting Center, Bowling Green State University, 1977-1998

Chairman, Advisory Committee, Statistical Consulting Center, Bowling Green State University, 1977-78.

Chairman, Statistics Program Committee, Bowling Green State University, 1979-81, 1993-95.

Listed in *AMWS (American Men & Women in Science)*, Consultants 1977-; *The National Register of Forensic Experts, Litigation Consultants and Legal Support Specialists*.

United Nations Statistical Consultant to Ghana (W. Africa), Fall 1981.

Committee on National and International Standards (American Statistical Association), 1985-87.

Committee on Continuing Education (American Statistical Association), 1989-91.

Committee on International Relations (American Statistical Association), 1991-1993.

Consulted for Portland Public School System: 1994-98.

Consulted for the Department of Education, Washington, D.C., 1994, 1995, 1997, 1998, 2001, 2004, 2006, 2007.

Chairman, Statistics Committee, 2003-05, 2008-2010.