

**CURRICULUM VITAE
SNEH GULATI, DEPARTMENT OF STATISTICS**

Department of Statistics
Florida International University
Miami, FL 33199
Ph: 305-348-2065
email: gulati@fiu.edu

EDUCATION:

Degree	Institution	Field	Date
Ph.D.	University of South Carolina, Columbia, South Carolina	Statistics	August 1991
Master of Arts	University of South Carolina, Columbia, South Carolina.	Mathematics	December 1988
Bachelor of Arts	St. Stephen's College, Delhi University, Delhi, India	Mathematics	April 1985

FULL TIME ACADEMIC EXPERIENCE/ EMPLOYMENT RECORD AT FIU

Institution	Rank	Department	Dates
Florida International University	Associate Chairperson	Mathematics and Statistics	August 2009-Present
Florida International University	Chairperson	Statistics	August 2005-August 2009
Florida International University	Professor	Statistics	August 2005-Present
Florida International University	Associate Professor	Statistics	August 1996-Present
Florida International University	Assistant Professor	Statistics	August 1991-July 1996

MEMBERSHIP:

American Statistical Association

PART TIME ACADEMIC EXPERIENCE:

Institution	Position	Dates
University of South Brittany, Vannes, France	English Professor for Statistics Graduate Students	Fall 2001
Miami Children's Hospital	Instructor for Physicians at the Critical Care Unit	Fall 1992

NON-ACADEMIC EXPERIENCE

Place of Employment	Title	Dates
Public Hurricane Loss Model – Funded by Office of Insurance Regulation	Statistician Responsible for the statistical component of a computer model to predict annual loss in the State of Florida due to a hurricane	July 2000 – June 2005 September 2008 - present

PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS

- 1) *Teaching Incentive Program Award*, 1994.
- 2) *Florida International University Faculty Teaching Award*, 1995.

SERVICE

- Service to the Profession:

1) *Associate Editor* for the Journal of Statistical Computation and Simulation (April 1997 – January 2006)

2) *President of the South Florida Chapter of the American Statistical Association*, October 1994 - October 1996 and February 2002 – January 2003.

3) *Vice President of the South Florida Chapter of the American Statistical Association*, February 2001 – January 2002.

4) *Secretary of the South Florida Chapter of the American Statistical Association*, December 1999 – February 2001.

5) *Chair-Elect-1995 and Chair-1996 for the Council of Chapters Section of the Joint Program Committee for the American Statistical Association.*

6) *Director of Young Statisticians for the International Indian Statistical Association.*

7) *Refereed Papers for the following Statistical Journals and Organizations:*

Journal of Nonparametric Statistics, 1992, 1993, 1998.

Technometrics, 1994.

The American Statistician, 1994.

Grant Proposal reviewed for the National Science Foundation, 1995, 2009

Communications in Statistics: Theory and Methods, 1996, 1998, and 2000.

Lifetime Data Analysis, 1998, 1999

Sankhya, 1999

Statistical Papers, 2002, 2003

Journal of Reliability Engineering, 2003

Journal of Probability and Statistical Science, 2004

Journal of Statistical Computation and Simulation, 2005, 2008, 2010

Computational Statistical and Data Analysis, 2004, 2005

Brazilian Journal of Statistics, 2008, 2010

Acta Geophysica, 2011

Bayesian Analysis, 2011

Journal of Statistical Theory and Practice, 2010

8) *Served on NSF panel to review grant proposals in Statistics, January 2008, January 2010*

9) *Judged the Undergraduate Data Analysis Contest at the Joint Statistical Meetings in Dallas, 1998*

10) *Wrote a chapter for "Resources for Undergraduate Instructors, Teaching Statistics" MAA Notes Volume, 2000, #52, Thomas L. Moore, Editor*

11) *Secretary, International Indian Statistical Association, August 2008-August 2010.*

- **Community Service and Other Activities**

Served on the Florida Commission on Hurricane Loss Projection Methodology August 2000 – September 2008.

The Florida Commission on Hurricane Loss Projection Methodology (FCHLPM) was created during the 1995 Legislative session as an independent panel of experts to evaluate computer models and other recently developed or improved actuarial methodologies for projecting hurricane losses. The Legislature specifically determined that reliable projections of hurricane losses are necessary to assure that rates for residential property insurance are neither excessive nor inadequate, and that computer modeling has made it possible to improve upon the accuracy of hurricane loss projections.

The Commission meets four times a year in Tallahassee. Three of the four meetings are scheduled for two days, while one is a one day meeting. In July of each year, the commission meets to develop standards for insurance models for the upcoming year. In September of the same year, the commission meets to vote on the standards. In March, the commission meets to review model submissions and then finally in May they meet to determine acceptability of the loss models.

Commission approval has become a benchmark for hurricane loss models all over the country. A hurricane loss model has no credibility if it is not approved by the commission. Commissioner Gallagher has reappointed the commission.

Have also served as **chair** of the commission from April 2001 till April 2004, during which time I presided over all the meetings, notified the modeling companies if their model was deemed acceptable or not.

- University Service:

Departmental

Associate Chair, Department of Mathematics and Statistics (August 2009-Present)

Chair of Department (August 2005- August 2009)

Colloquium Committee (1991 - 1992)

Curriculum Committee (1991 – 1994, 2004-2005, 2007-present)

Graduate Committee (1993 – 1994, 1997 – April 2001, April 2004-2005)

Chair of Curriculum Committee (1994 - July 1996)

Syllabus Committee (1993 - 1999), August 2002 – April 2005.

Scheduling Committee (2007 – present)

Student Recruitment Committee (July 1998 – April 2001), August 2002 – August 2005

College of Arts and Science

Undergraduate Council (January 1998)

Procedural Committee (Spring 1997)

Curriculum Committee, College of Arts and Sciences, 1993 - 1994.

Strategic Planning Committee of the Dean, Spring 2008

Tenure and Promotion Committee, CAS, 2008-2009

Steering Committee, CAS 2006-2009

Chair, College Assembly, CAS 2009-Present

University

Served on a panel to interview candidates for McNair Program, 2008

Served on a Task Force to evaluate role of chairs, Fall 2007-Spring 2008

University Faculty Senate (Fall 1996 – April 2001), August 2003 - 2008

Served as a mentor for two students on McNair Program, 2005 and 2007

Budget Committee (August 2000 – April 2001)

Taught a Short Statistics Course at the World Meteorological Conference held at the Kovens Center in March/ April 1996.

Teaching Experience at FIU

a. List of Courses Taught at FIU

1. STA 2023: *Business Statistics*
2. STA 2122: *Introduction to Statistics I*
3. STA 3033: *Introduction to Probability and Statistics for Computer Science,*
4. STA 3111: *Statistics I*
5. STA 3112: *Statistics II*
6. STA 3123: *Introduction to Statistics II*
7. STA 3163: *Statistical Methods I*
8. STA 3164: *Statistical Methods II*
9. STA 3060L: *Statistical Methods Laboratory*
10. STA 4234/ 5236: *Regression Analysis*
11. STA 4321: *Mathematical Statistics, I*
12. STA 4322: *Mathematical Statistics, II*
13. STA 4664/5666 *Quality Control*
13. STA 4502/5505: *Nonparametric Methods*
14. STA 6166: *Statistical Methods in Research,*
15. STA 6176: *Biostatistics*
16. STA 6246 *Data Analysis I*
17. STA 7707: *Applied Multivariate Analysis*
18. STA 7708: *Applied Multivariate Analysis II*
19. IDH 1001: *Origin of Ideas and Ideas of Origin I**
20. IDH 1002: *Origin of Ideas and Ideas of Origin I**

* Interdisciplinary Courses taught for the honors college

b. Master's Students

Michael Berger defended thesis September 04, 1998.

Nuong Lien , Approximate Maximum Likelihood Estimation for the Exponential Distribution for Middle Censored Data”, in progress

Norma Piloto, “Goodness of Fit or the Exponential Distribution for Middle Censored Data”, defended April 2010.

Antonio Hudson, “Sensitivity and Uncertainty Analysis for the Public Hurricane Loss Projection Model”, in progress.

Fan Yang, “Tail Risk Analysis and Extreme Quantile Estimation for Catastrophic Events”, in progress.

RESEARCH

RESEARCH INTERESTS:

Nonparametric Estimation, Reliability and Survival Analysis, Goodness of Fit, Catastrophe Modeling

PUBLICATIONS

BOOKS

Parametric and Nonparametric Inference From Record-Breaking Data, 2003, **Sneh Gulati** and W.J. Padgett, Lecture Notes in Statistics, Vol. 172, Springer Verlag.

PUBLICATIONS IN PROFESSIONAL JOURNALS:

Articles:

- 1) *Goodness of Fit for the Rayleigh and the Laplace Distributions* (2011). **Sneh Gulati**, International journal of Applied Mathematics and Statistics, 24, pp 74-85
- 2) *Public Hurricane Loss Evaluation Models: Predicting Losses of Residential Structures in the State of Florida by the Public Hurricane Loss Evaluation Model (with discussion)* (2010) Shahid Hamid, B. M. Golam Kibria, **Sneh Gulati**, Mark Powell, Bachir Annane, Steve Cocke, Jean Paul Pinelli, Kurt Gurley and Shu-Ching Chen, Statistical Methodology, 7(5) pp. 552-573
- 3) *Upper Tolerance Intervals for Exponential Distribution based on Grouped Data* (2009) D. T. Shirke, **Sneh Gulati** and R. R. Kumbar, International Journal of Intelligent Technology and Applied Statistics, Vol.2, No.2 (2009) pp.1-19
- 4) *Goodness of Fit Tests for the Logistic Distribution*, (2009) **Sneh Gulati** and Samuel Shapiro, Journal of Statistical Theory and Practice, 3. 567-576
- 5) *Goodness of Fit Tests for the Pareto Distribution*, **Sneh Gulati** and Samuel Shapiro, in **Statistical Models and Methods for Biomedical and Technical Systems** published by Birkhauser, Boston (Vonta, F., Nikulin, M., Linnios, N. and Huber, C. editors), pp 263-277.
- 6) *Testing for Scale Families Using Total Variation Distance*, **Sneh Gulati** and Jie Mi, Journal of Statistical Computation and Simulation (2006), 9, 773-792.

- 7) *Goodness of Fit of a Joint Event Model for Event Time and Nonignorable Missing Longitudinal Quality of Life Data*, **Sneh Gulati** and Mounir Mesbah, in "Probability, Statistics and Modeling in Public Health", (Editors: Daniel Commenges, Catherine Huber, and Mikhail Nikulin), 2006, XXIV, Springer.
- 8) *State of Florida hurricane loss projection model: Atmospheric science component*, Powell, M. D., G. Soukup, S. Cocke, **S. Gulati**, N. Morisseau-Leroy, S. Hamid, N. Dorst, and L. Axe, 2005, J.Wind Engineer. and Indust. Aerodyn., 93, 651-674
- 9) *Smooth Nonparametric Estimation of the Distribution Function from Balanced Ranked Set Samples*, **Sneh Gulati**, Environmetrics (2004), 15, 529-539.
- 10) *A web-based distributed system for hurricane occurrence simulation*," Shu-Ching Chen, **Sneh Gulati**, Shahid Hamid, Xin Huang, Lin Luo, Nirva Morisseau Leroy, Mark D. Powell, Chengjun Zhan and Chengcui Zhang, Software - Practice & Experience (2004), volume 34 (6), 549-571.
- 11A) *Goodness of Fit Statistics for the Exponential Distribution when the Data are grouped*, **Sneh Gulati** and Jordan Neus, in Communications in Statistics, (2003), Vol. 32, # 3 pp. 681-700
- 11b) *Goodness of Fit Statistics for the Exponential Distribution when the Data are grouped*, a shorter version than 1a) of article has appeared in Goodness of Fit Tests and Validity of Models, editors C. Huber, N. Balakrishnan, M. Mesbah and M. Nikulin, Birkhauser, 2001, pp. 113-122.
- 12) *Comparison of Some Reduced-Bias Kernel Density Estimators*, **Sneh Gulati**, J.W. Kuhn and W.J. Padgett, Mathematical Sciences Research, (2001), 5(4), 29-48.
- 13) *Record-Breaking Data: A Parametric Comparison of the Inverse and Random Sampling Schemes* Michael Berger and **Sneh Gulati**, Journal of Statistical Computation and Simulation, (2001), 69(3), 225-238.
- 14) *Estimating the Mean of an Exponential Distribution from Grouped Observations*, Samuel Shapiro and **Sneh Gulati**, Journal of Quality Technology (1998), 30(2), pp. 107-118.
- 15) *Families of Smooth Confidence Bands for the Survival Function under the General Random Censorship Model*, **Sneh Gulati** and W.J. Padgett, Lifetime Data Analysis, (1996), pp. 349-362.

- 16) *Selecting Failure Monitoring Times for an Exponential Life Distribution*, Samuel Shapiro and **Sneh Gulati**, Journal of Quality Technology, (1996), pp. 429-438.
- 17) *Nonparametric Function Estimation from Inversely Sampled Record-Breaking Data*, **Sneh Gulati** and W.J. Padgett, Canadian Journal of Statistics, (1995), pp. 359-368.
- 18) *Estimation of Nonlinear Statistical Functions from Record-Breaking Data: A Review*, **Sneh Gulati** and W.J. Padgett, Nonlinear Times Digest, 1, (1994), pp. 97-112.
- 19) *Smooth Nonparametric Estimation of the Hazard and the Hazard Rate Function from Record-Breaking Data*, **Sneh Gulati** and W.J. Padgett, Journal of Statistical Planning and Inference, 42, (1994), pp. 331-341.
- 20) *Nonparametric Quantile Estimation from Record-Breaking Data*, **Sneh Gulati** and W.J. Padgett, Australian Journal of Statistics, 36, (1994), pp. 211-223.
- 21) *Smooth Nonparametric Estimation of the Density and Distribution Function from Record-Breaking Data*, **Sneh Gulati** and W.J. Padgett, Communications in Statistics - Theory and Methods, 23, (1994) pp. 1259-1274.
- 22) *On Bounds for the Moments of the Brittle Fracture Distribution*, (in Comments, Conjectures and Conclusions Column, I.J. Good, Editor), Journal of Statistical Computation and Simulation, 47, (1993), pp. 105-108, **Sneh Gulati**, S.D. Durham and W.J. Padgett.
- 23) *Kernel Density Estimation from Record-Breaking Data* (with discussion by referee, Saul Blumenthal), **Sneh Gulati** and W.J. Padgett, in Survival Analysis: State of the Art (NATO Advanced Workshop on Survival Analysis and Related Topics), J. Klein and P. Goel, Eds. Kluwer Academic Publishers, Amsterdam (1992), pp. 197-210.

OTHER PUBLICATIONS:

- 1) *A Three-Tier System Architecture Design and Development for Hurricane Occurrence Simulation*, Shu-Ching Chen, **Sneh Gulati**, Shahid Hamid, Xin Huang, Lin Luo, Nirva Morisseau-Leroy, Mark Powell, Chengjun Zhan, and Chengcui Zhang, Proceedings of the IEEE International Conference on Information Technology: Research and Education (ITRE 2003), pp. 113-117, August 10-13, 2003, Newark, New Jersey, USA, August 10-13.
- 2) *Information Reuse and System Integration in the Development of a Hurricane Simulation System*, Shu-Ching Chen, Shahid Hamid, **Sneh Gulati**, Guo Chen, Xin Huang, Lin Luo, Chengjun Zhan, Chengcui Zhang, Proceedings of the 2003 IEEE International Conference on Information Reuse and Integration (IRI '2003), pp. 535-542, October 27-29 2003, Las Vegas, NV.
- 3) *Information Reuse and System Integration in the Development of a Hurricane Simulation System*, Chen, S.-C., S. Hamid, S. Gulati, G. Chen, X. Huang, L. Luo, C. Zhan, and C. Zhang (2003). Proceedings of the 2003 IEEE International Conference on Information Reuse and Integration (IRI'2003), October 27-29, 2003, Las Vegas, Nevada, USA, pp. 535-542.
- 4) *Classification of Structural Models for Wind Damage Prediction in Florida*, Jean-Paul Pinelli, Josh Murphree, Chelakara Subramanian, Kurt Gurley, Anne Cope, Shahid Hamid, and **Sneh Gulati**, Proceedings of 11th International Conference in Wind Engineering, Lubbock Texas, June 2003.
- 5) *A Probabilistic Model of Damage to Residential Structures from Hurricane Winds*, Cope, A., Gurley, K., Pinelli, J.P., Murphree, J., Subramanian, C., **Gulati, S.** and Hamid,S. (2004). ASCE joint specialty conference on probabilistic mechanics and structural reliability.
- 6) *Hurricane loss estimation: model development, results and validation*, Pinelli, J.P., Murphree, J., Subramanian, C., Zhang, L., Gurley, K., Cope, A., Hamid, S., and **Gulati, S.** (2004). Joint International Conference on Probabilistic Safety Assessment and Management and the European Safety and Reliability Conference
- 7) *Hurricane loss prediction: model development, results, and validation*, Pinelli, J.P., Subramanian, C., Murphree, J., Gurley, K., Cope, A., **Gulati, S.**, Simiu, E.,and Hamid, S. (2005). ICOSSAR.
- 8) *Florida public hurricane loss projection vulnerability model*, Pinelli, J.P., Subramanian, C., Murphee, J., Gurley, K., Hamid, S., and Gulati, S. (2005). 10th American Conference on Wind Engineering.

PAPERS IN PROGRESS

- 1) *Goodness of Fit using Regression Techniques, in progress.*
- 2) *Testing for Semi-Markov Processes, Sneh Gulati, Florence George and Nikolaos Limnios, in progress*

PRESENTED PAPERS. LECTURES, EXHIBITIONS AND PERFORMANCES

- 1) *Predicting Residential Losses in Florida by the Public Model, Contributed Talk, "International Workshop on Applied Probability", held at University Carlos III de Madrid, Colmenjaro, Spain, July 5-8, 2010.*
- 2) *Testing for the Logistic and the Pareto Distribution, Invited Speaker, "Joint Statistical Meetings" held at Denver, Colorado, August 3-7, 2008*
- 3) *Records and Hurricanes, Invited Speaker, "Nonparametric Statistics and Mixture Models, Past Present and Future", Held at Penn State University, Department of Statistics, May 23-24, 2008.*
- 4) *Testing for Semi-Markov Processes, Invited Speaker, "Second International Conference on Cancer Risk Assessment held in Santorini, Greece, May 25-27, 2007*
- 5) *Goodness of Fit Tests for the Pareto Distribution, Invited Speaker, "Biostat 2006: Statistical Models for Biomedical and technical Systems", held at Limassol, Cyprus, 29-31 May, 2006.*
- 6) *Inference from Record-Breaking Data, Invited Speaker, "International Conference on Applied Probability", University of Connecticut, May 15-18, 2006.*
- 7) *Comparison of Some Reduced Bias Kernel Density Estimators, Invited Speaker, "Fifth Biennial International Conference on Statistics, Probability and Related Areas", held May 14-May16, 2004 at the University of Georgia, Athens, Georgia.*

- 8) *Smooth Nonparametric Estimation of the Distribution Function from Balanced Ranked Set Samples*, **Invited Speaker** at the Workshop on "Environment and Health Related Quality of Life: Statistical Perspectives" held Nov 7-9, 2002 at University of South Brittany, Vannes, France
- 9) *Goodness of Fit of a Joint Model for Event Time and Nonignorable Missing Longitudinal Quality of Life Data*, **Invited Speaker** at the IISA Fourth Biennial International Conference held June 14-16, 2002 at Northern Illinois University, Dekalb, Illinois. Another version of the talk was presented as an **Invited Speaker** at a Special Contributed Session at the Joint Statistical Meetings held in New York City, August 11-15, 2002
- 10) *Inference from Record-Breaking Data – A Review*: **Invited Colloquium Speaker** at the University of South Brittany, Vannes, France on 26 October, 2001
- 11) *On Reduced Bias Kernel Estimators from Complete and Censored Samples*: **Invited Colloquium Speaker** at the European Seminar at University of Paris, V on 16 November 2001.
- 12) *Nonparametric Inference from Record-Breaking Data: A Review*, **Invited Speaker** at the SMOD (Statistical Methods for Analyzing Olympic Data and Records) Workshop held September 5 – 6, 2001 at University of Bordeaux 2, Bordeaux, France.
- 13) *Goodness of Fit Statistics for the Exponential Distribution when the Data are Grouped*, **Invited Speaker** at the "International Workshop GOF2000 on Goodness-of-fit Tests and validity of Models" held May 29 – 31, 2000 at the Universite Rene-Descartes, V in Paris.
- 14) *Record-Breaking Data: A Comparison of the Random Sampling and the Inverse Sampling Schemes*, **Invited Speaker** "Statistics: Reflections on the Past and Visions for the Future" held March 16-19, 2000 at University of Texas in San Antonio.
- 15) *Reduced-Bias Kernel Density Estimators Based on Randomly Right-Censored Data*, **Invited Speaker** at the "International Conference on Combinatorics, Statistics, Pattern Recognition and Related Areas" held at the University of Mysore, Mysore, India, Dec 28 - Dec 30, 1998.
- 16) *Estimating the Mean of the Exponential Distribution from Grouped Observations*, **Seminar Talk** at the Department of Statistics, Florida International University, Presented on January 16, 1998.
- 17) *Smooth Nonparametric Estimation of the Distribution Function from Balanced Ranked Set Samples*, **Invited Speaker** at the "International

Conference on Combinatorics, Information Theory and Statistics", held at University of Southern Maine, July 18 - July 20, 1997.

- 18) *Families of Smooth Confidence Bands for the Survival Function under the General Random Censorship Model*, **Invited Presentation** at "Statistical research in the 21st Century" held in Montreal, Nov. 29-30, 1996.
- 19) *Families of Smooth Confidence Bands for the Survival Function under the General Random Censorship Model*, **Invited Colloquium Speaker** at the Department of Statistics, Oklahoma State University, Stillwater. Presented on November 17, 1995.
- 20) *Smooth Nonparametric Function Estimation from Inversely Sampled Record-Breaking Data*, **Contributed Talk** at the 1994 Joint Statistical Meetings, August 13-18, Toronto.
- 21) *Smooth Nonparametric Estimation of the Hazard and the Hazard Rate Functions from Record-Breaking Data*, **Contributed Talk** at the 1992 Joint Statistical Meetings, August 9 - 13, Boston.
- 22) *Moments of the Brittle Fracture Distribution*. **Colloquium Talk** at the Department of Statistics, Florida International University, November, 1991.
- 23) *Kernel Density Estimation from Record-Breaking Data*. Paper presented by co-author Dr. W.J. Padgett at NATO Advanced Workshop on Survival Analysis and Related Topics, Columbus, Ohio, June 23-28, 1991. (I did not attend the conference).
- 24) *Smooth Nonparametric Estimation of the Density and Distribution Function from Record-Breaking Data*, **Contributed Talk** at "Statistics '91 Canada", Third Conference in Applied Statistics (May 23-25, 1991) at Concordia University, Montreal.

GRANT PROPOSALS:

- 1) Faculty Development Award (Dean's office, College of Arts and Sciences, Florida International University), Fall 1991.
- 2) FIU Foundation Research Award (Provost's Office, Florida International University), Summer 1992.

3) “Enhancement of H*Wind Operations”

Source: National Oceanic and Atmospheric Administration (NOAA) Joint Hurricane Testbed (JHT) Program. – Applied in 2003. NOT FUNDED

Investigators: Dr. Mark Powell, NOAA and Sneh Gulati

4) Prediction of Tropical Cyclogenesis Using Regularized Discriminant Analysis.,

Source: National Science Foundation

Investigators: Donald Richards and Sneh Gulati