# MARINA VANNUCCI

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# **PERSONAL**

Born in Prato, Italy, on July 23, 1966. Italian Citizen, Permanent Resident of the United States

# RESEARCH INTERESTS

<u>Theory and Methods</u>: Bayesian Variable Selection, Wavelet Methods in Statistics. <u>Applications</u>: Bioinformatics, Chemometrics and Engineering.

# **EDUCATION**

1996	Ph.D., Statistics, University of Florence, Italy
	Thesis title: On the Application of Wavelets in Statistics (in italian)
	S.I.S. (Italian Statistical Society) prize Best Doctoral Thesis in Statistics
	Advisor: Prof. Antonio Moro
1992	Laurea (B.S.), Mathematics, University of Florence, Italy

## **EXPERIENCE**

2007-	Professor, Department of Statistics, Rice University, TX.
Spring 07	Adjunct Professor, Department of Statistics, Rice University, TX.
2005-2007	Professor, Department of Statistics, Texas A&M University, TX.
2005-2007	Program Coordinator, Training Program in Bioinformatics, Texas A&M University
2005-2007	Director for Bioinformatics, Biostatistics and Bioinformatics Facility Core,
	NIEHS Center for Environmental and Rural Health (CERH), Texas A&M University
2003-2005	Associate Professor, Department of Statistics, Texas A&M University, TX.
1998-2003	Assistant Professor, Department of Statistics, Texas A&M University, TX.
1996-1998	Research Fellow, Institute of Mathematics and Statistics, University of Kent at
	Canterbury, UK

# **VISITING POSITIONS**

Visiting Scholar, Department of Statistics, Rice University, TX (Fall 2006) Visiting Scholar, Department of Statistics, University of Florence, Italy

(July 2005, July 2006, June 2007)

Visiting Scholar, Biostatistics Department and New York State Psychiatric Institute,

Columbia University, NY (Fall 2004)

Visiting Scholar, Department of Statistics, Stanford University, CA (Summer & Fall 2001)

Research Assistant, University of Kent at Canterbury, UK (July 1999)

Visiting Ph.D. Student, ISDS, Duke University, NC (May-October 1995)

Visiting Ph.D. Student, Department of Mechanical Engineering, Rice University, TX (March-May 1995)

## AWARDS

Mitchell Prize, International Society for Bayesian Analysis, 2003

JASA-Applications and Case Studies Editor's Invited Paper, 2003

CAREER award, National Science Foundation, 2001-2005

"Best Doctoral Thesis in Statistics", S.I.S. (Italian Statistical Society) award

Graduate School Fellowship for studies in Statistics, University of Florence, 1992-1995

IBM Scholarship on "Statistical software evaluation", 1992

# **HONORS**

Plenary Lecture, International Biometric Society, Pisa, Italy, 2007

Fellow, American Statistical Association (ASA), elected 2006

Keynote Speaker, Workshop on Bayesian Inference in Complex Stochastic Systems, Warwick, UK, 2006 Member, Royal Statistical Society (RSS), elected 1997

#### **GRANTS**

## Major Support (P.I.):

2006-2009 NSF, National Science Foundation, DMS 0605001 (P.I.).

Wavelet-Based Statistical Modeling and Applications. Total: \$120,000

2005-2009 NIH/NHGRI - National Human Genome Research Institute, 1R01 HG003319-01, (P.I.)

Bayesian Methods for Genomics with Variable Selection. Total: \$600,000

2003-2005 Telecommunications and Informatics Task Force at TAMU.

(Co-P.I. with A.L. Narasimha Reddy, Riccardo Bettati and Darbha Swaroop)

HAIL: High Availability network Infrastructure Laboratory. Total: \$335,000

2001-2005 NSF, National Science Foundation, CAREER award (P.I.)

Some Applications of Wavelets in Statistics. Total: \$250,000

2000-2001 Texas Higher Education Advanced Research Grant (P.I.). Total: \$34,325

Multivariate Wavelet Component Selection in Near-Infrared Calibration Problems

1999 International Research Travel Assistant Grant, Texas A&M University (P.I.)

## Major Support (co-I.):

2007-2010 NIH-NIGMS, 1R01 GM81631-01 (P.I. Jerry Tsai).

Side Chain Driven Refinement of Protein Structure. Role: Co-I.

2005- NIH-NCI, Training Program in Bioinformatics (Director: Raymond J. Carroll).

Role: Co-I., Program Coordinator and Mentor for postdoctoral trainees.

2005 - 2007	NIH-NIEHS, Center for Environmental and Rural Health (Director: Philip Mirkes).
	Role: Leading role in the creation of the Biostatistics & Bioinformatics Facility Core
	and in the hiring of the initial staff members, and first Director of the Core.
2004-2005	NIH-NCI, 1R01 CA107304-01 (P.I. Jeffrey S. Morris).
	Adaptive Methodology for Functional Biomedical Data. Role: Co-I, year 1.
2002-2003	Texas Higher Education Advanced Technology (P.I. A.L. Narasimha Reddy).
	Total: \$149,800. Network Architectures Based on Partial State. Role: Co-I.

# Other Support:

2004	Texas/United Kingdom Collaborative Research Initiative, travel support
2003-2004	National co-founded research, MIUR, Italy (Investigator)
2003	NSF International Travel grant
2001	Texas Transportation Institute, Texas A&M University, support for research
1999-2002	National co-founded research, MURST, Italy (Investigator)
1998	Overseas Conference Grant, The British Academy, UK
1997	Conference Grant, The Royal Society, UK
1996	Fondi ex quaranta%, Italy

#### **PUBLICATIONS**

#### **Books:**

- 1. Do, K.-A., Mueller, P. and Vannucci, M. (2006). Bayesian Inference for Gene Expression and Proteomics. Edited Volume. Cambridge University Press.
- 2. Vannucci, M. (2008). Wavelets in Statistics and their Applications. Springer Verlag (in preparation).

## Theory & Methods:

- 1. Vannucci, M. and Vidakovic, B. (1997). Preventing the Dirac disaster: Wavelet based density estimation. *Journal of the Italian Statistical Society*, **6(2)**, 145-159.
- 2. Brown, P.J., Vannucci, M. and Fearn, T. (1998). Multivariate Bayesian variable selection and prediction. *Journal of the Royal Statistical Society, Series B*, **60(3)**, 627-641.
- 3. Brown, P.J., Fearn, T. and Vannucci, M. (1999). The choice of variables in multivariate regression: a non-conjugate Bayesian decision theory approach. *Biometrika*, 86(3), 635-648.
- 4. Vannucci, M. and Corradi, F. (1999). Covariance structure of wavelet coefficients: Theory and models in a Bayesian perspective. *Journal of the Royal Statistical Society, Series B*, **61(4)**, 971-986.
- VANNUCCI, M. and CORRADI, F. (1999). Modeling dependence in the wavelet domain. In Bayesian Inference in Wavelet based Models. (Eds P. Müller and B. Vidakovic), New York: Springer-Verlag, 173-186
- 6. Brown, P.J., Fearn, T. and Vannucci, M. (2001). Bayesian wavelet regression on curves with application to a spectroscopic calibration problem. *Journal of the American Statistical Association*, **96**, 398-408.
- 7. Vannucci, M. and Liò, P. (2001). Non-decimated wavelet analysis of biological sequences: Applications to protein structure and genomics. *Sankhya, Series B*, **63(2)**, 218-233.
- 8. Vannucci, M., Brown, P.J. and Fearn, T. (2001). Predictor selection for model averaging. In *Bayesian methods with applications to science, policy and official statistics.* (Eds E.I. George and P. Nanopoulos), Eurostat: Luxemburg, 553-562.
- 9. Sha, N. and Vannucci, M. (2002). Contribution to the discussion of "A statistical framework for expression-based molecular classification in cancer", *Journal of the Royal Statistical Society, Series B*, **64(4)**, 737.
- 10. Brown, P.J., Vannucci, M. and Fearn, T. (2002). Bayes model averaging with selection of regressors. *Journal of the Royal Statistical Society, Series B*, **64(3)**, 519-536.

- 11. Morris, J.S., Vannucci, M., Brown, P.J. and Carroll, R.J. (2003). Wavelet-Based Nonparametric Modeling of Hierarchical Functions in Colon Carcinogenesis (with discussion). *Journal of the American Statistical Association*, **98**, 573–597. *JASA-A&CS* Editor's Invited Paper and Winner of the *Mitchell Prize*.
- 12. Vannucci, M., Brown, P.J. and Fearn, T. (2003). A decision theoretical approach to wavelet regression on curves with a high number of regressors. *Journal of Statistical Planning & Inference*, **112(1-2)**, 195-212.
- 13. Sha, N., Vannucci, M., Tadesse, M.G., Brown, P.J., Dragoni, I., Davies, N., Roberts, T.C., Contestabile, A., Salmon, N., Buckley, C. and Falciani, F. (2004). Bayesian variable selection in multinomial probit models to identify molecular signatures of disease stage. *Biometrics*, 60(3), 812–819.
- 14. Gabbanini, F., Vannucci, M., Bartoli, G. and Moro, A. (2004). Wavelet Packet Methods for the Analysis of Variance of Time Series with Application to Crack Widths on the Brunelleschi Dome. *Journal of Computational and Graphical Statistics*, **13(3)**, 639–658.
- 15. Park, C.G., Vannucci, M. and Hart, J.D. (2005). Bayesian Methods for Wavelet Series in Single-Index Models. *Journal of Computational and Graphical Statistics*, **14(4)**, 770–794.
- 16. Tadesse, M.G., Sha, N. and Vannucci, M. (2005). Bayesian variable selection in clustering high-dimensional data. *Journal of the American Statistical Association*, **100**, 602–617.
- 17. TADESSE, M.G., IBRAHIM, J.G., VANNUCCI, M. and GENTLEMAN, R. (2005). Wavelet thresholding with Bayesian false discovery rate control. *Biometrics*, **61**, 25–35.
- 18. Tadesse, M.G., Sha, N., Kim, S. and Vannucci, M. (2006). Identification of biomarkers in classification and clustering of high-throughput data. In *Bayesian Inference for Gene Expression and Proteomics*, Kim-Anh Do, Peter Mueller and Marina Vannucci (Eds). Cambridge University Press, 97–115.
- 19. Kwon, D.W., Kim, S., Dahl, D., Swartz, M., Tadesse, M.G. and Vannucci, M. (2006). Identification of DNA regulatory motifs and regulators by integrating gene expression and sequence data. In *Bayesian Inference for Gene Expression and Proteomics*, Kim-Anh Do, Peter Mueller and Marina Vannucci (Eds). Cambridge University Press, 333–346.
- 20. Kim, S., Tadesse, M.G. and Vannucci, M. (2006). Variable selection in clustering via Dirichlet process mixture models. *Biometrika*, **93(4)**, 877–893.
- 21. Ko, K. and Vannucci, M. (2006). Bayesian wavelet analysis of autoregressive fractionally integrated moving-average processes. *Journal of Statistical Planning and Inference*, **136(10)**, 3415–3434.
- 22. Ko, K. and Vannucci, M. (2006). Bayesian wavelet-based methods for the detection of multiple changes of the long memory parameter. *IEEE Transactions on Signal Processing*, **54(11)**, 4461-4470.

- 23. Kim, S. and Vannucci, M. (2007). Discussion of "Detecting selection in DNA sequences: Bayesian Modelling and Inference", *Bayesian Statistics 8*, edited by J.M. Bernardo, M.J. Bayarri, J.O. Berger, A.P. Dawid, D. Heckerman, A.F.M. Smith and M. West. Oxford University Press.
- 24. Dahl, D., Mo, Q. and Vannucci, M. (2008). Simultaneous inference for multiple testing and clustering via a Dirichlet process mixture model. *Statistical Modelling: An International Journal*, to appear.

# Methods & Applications: Bioinformatics (Gene Expression and Proteomics)

- 25. Sha, N., Vannucci, M., Brown, P.J., Trower, M.K., Amphlett, G. and Falciani, F. (2003). Gene selection in arthritis classification with large-scale microarray expression profiles. *Comparative and Functional Genomics*, **4(2)**, 171-181.
- 26. Lee, K.E., Sha, N., Dougherty, E., Vannucci, M. and Mallick, B.K. (2003). Gene selection: A Bayesian variable selection approach. *Bioinformatics*, **19(1)**, 90-97.
- 27. Davies, N., Tadesse, M.G., Vannucci, M., Kikuchi, H., Trevino, V., Sarti, D., Dragoni, I., Contestabile, A., Zanders, E. and Falciani, F. (2004). Making sense of molecular signatures in the immune system. *Journal of Combinatorial Chemistry and High Throughput Screening*, **7(3)**, 231–238.
- 28. Vannucci, M., Sha, N. and Brown, P.J. (2005). NIR and mass spectra classification: Bayesian methods for wavelet-based feature selection. *Chemometrics and Intelligent Laboratory Systems*, 77, 139–148.
- 29. Sha, N., Tadesse, M.G. and Vannucci, M. (2006). Bayesian variable selection for the analysis of microarray data with censored outcome. *Bioinformatics*, **22(18)**, 2262-2268.
- 30. Kwon, D.W., Tadesse, M.G., Sha, N., Pfeiffer, R.M. and Vannucci, M. (2007). Identifying biomarkers from mass spectrometry data with ordinal outcome. *Cancer Informatics*, **3**, 19-28.
- 31. Jayaraman, A., Maguire, T., Vemula, M., Kwon, D.W., Vannucci, M., Berthiaume, F., and Yarmush, M.L. (2007). Gene expression profiling of long-term changes in rat liver following burn-injury. *Journal of Surgical Research*, accepted.

# Methods & Applications: Computational, Structural and Molecular Biology

- 32. Liò, P. and Vannucci, M. (2000). Wavelet change-point prediction of transmembrane proteins. *Bioinformatics*, **16(4)**, 376-382.
- 33. Liò, P. and Vannucci, M. (2000). Finding pathogenicity islands and gene transfer events in genome data. *Bioinformatics*, **16(10)**, 932-940.

- 34. Liò, P. and Vannucci, M. (2003). Investigating the evolution and structure of chemokine receptors. *Gene*, **317**, 29–37.
- 35. Tadesse, M.G., Vannucci, M. and Liò, P. (2004). Identification of DNA regulatory motifs using Bayesian variable selection. *Bioinformatics*, **20(16)**, 2553–2561.
- 36. Kim, S., Tsai, J., Kagiampakis, I., Liwang, P. and Vannucci, M. (2007). Detecting protein dissimilarities in multiple alignments using Bayesian variable selection. *Bioinformatics*, **23(2)**, 245–246.

# Methods & Applications: Engineering, Forestry and Psychiatry

- 37. Kim, S.S., Reddy, A.L.N. and Vannucci, M. (2004). Detecting traffic anomalies through aggregate analysis of packet header data. In *Proceedings of the 3rd IFIP-TC6 Networking conference*. Mitrou, N. et al. (Editors), Lecture Notes in Computer Science, vol. 3042, Springer Verlag, 1047-1059 (refereed volume, 103/539=19.1% acceptance rate).
- 38. Kim, S.S., Reddy, A.L.N. and Vannucci, M. (2004). Detecting traffic anomalies using discrete wavelet transform. In *Proceedings of the International Conference on Information Networking*. Kahng, H.K. and Goto, S. (Editors), Lecture Notes in Computer Science, vol. 3090, Springer Verlag, 951-961 (referred volume, 104/341=30.5% acceptance rate).
- 39. Fabbroni, L., Vannucci, M., Cuoco, E., Losurdo, G., Mazzoni, M. and Stanga, R. (2005). Wavelet tests for the detection of transients in the VIRGO interferometric gravitational wave detector. *IEEE Transactions on Instrumentation and Measurement*, **54(1)**, 151-162.
- 40. Kwon, D.W., Ko, K., Vannucci, M., Reddy, A.L.N. and Kim, S. (2006). Wavelet methods for the detection of anomalies and their application to network traffic analysis. *Quality and Reliability Engineering International*, 22, 1-17.
- 41. Alhamad, M.N., Stuth, J. and Vannucci, M. (2007). Biophysical Modeling and NDVI Time Series to Project Near-Term Forage Supply: Spectral Analysis aided by Wavelet Denoising and ARIMA modeling. *International Journal of Remote Sensing*, **28(11)**, 2513-2548.

#### Methods & Applications: Chemometrics

- 42. Brown, P.J., Vannucci, M. and Fearn, T. (1997). Multivariate Bayesian wavelength selection for NIR spectra applied to biscuit dough pieces. *Proceedings of the* 5<sup>a</sup> *Journees Europeennes Agro-Industrie et Methodes Statistique*, 19.1-19.11 (refereed volume).
- 43. Brown, P.J., Vannucci, M. and Fearn, T. (1998). Bayesian wavelength selection in multicomponent analysis. *Journal of Chemometrics*, **12(3)**, 173-182.

44. Spiegelman, C., Bennett, J., Vannucci, M., McShane, M.J. and Cotè, G. (2000). A transparent tool for seemingly difficult calibrations: The parallel calibration method. *Analytical Chemistry*, **72(1)**, 135-140. Correction in **72(8)**, p. 1944.

# Technical Reports and Unrefereed Proceedings

- 45. Vannucci, M. (1995). Nonparametric Density Estimation using Wavelets: A Review. *Discussion Paper* 95-26, ISDS, Duke University, USA.
- 46. Vannucci, M., Moro, A. and Spanos, P.D. (1996). Wavelets in random processes representation. *Proceedings of the 1996 ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*. August 7-9, Worcester, Massachusetts, 672-675.
- 47. VANNUCCI, M. and CORRADI, F. (1996). Model shrinking of wavelet coefficients and applications. Proceedings of the Section on Bayesian Statistical Science, 1996 Joint Statistical Meetings, American Statistical Association. August 4-8, Chicago, Illinois, 117-123.
- 48. Pacini, B. and Vannucci, M. (1996). Nonparametric methods for density and regression estimation (in italian). *Serie Didattica*, n.15. Department of Statistics "G.Parenti", University of Florence, Italy.
- 49. Vannucci, M. (2000). Matlab code for Bayesian variable selection. *Bulletin of the International Society for Bayesian Analysis*, **7(3)**, 12-13.
- FABBRONI, L. and VANNUCCI, M. (2000). Wavelet tests for the detection of transients. LAL VIRGO Note 1390-151.
- 51. LEE, S., VANNUCCI, M., PETKOVA, E., PRETER, M. and DONALD, K. (2007). Analysis of Panic Relevant Experimental Tidal Volume Curves: Wavelet-based Functional Hypothesis Testing. *Depression and Anxiety*, **24(4)**, 293-295 (Invited Meeting Abstract).
- 52. Turner, N.D., Davidson, L.A., Vannucci, M., Mo, Q., Carroll, R.J., Chapkin, R.S. and Lupton, J.R. (2007). Radiation- and diet-induced exposure differential expression if genes measured over time in exfoliated rat coloncytes. *Proceedings of the 18th Annual NASA Space Radiation Investigators' Workshop*, July 13-15, 2007, Rohnert Park, CA, 12.

#### Theses

Vannucci, M. (1992). Automatic evaluation of generating function coefficients (in italian). *Bachelor Thesis*, Dipartimento di Matematica "U.Dini", University of Florence, Italy.

Vannucci, M. (1996). On the Application of Wavelets in Statistics (in italian). *Doctoral Thesis*, Dipartimento Statistico "G.Parenti", University of Florence, Italy. Awarded with the S.I.S. (Italian Statistical Society) prize *Best Doctoral Thesis in Statistics*, Italy.

#### INVITED PRESENTATIONS

I have given 75 invited presentation, since 1995. Those from the last 5 years include:

- 2003 ISI International Conference on Environmental Statistics and Health, Santiago de Compostela, Spain.
- 2003 Joint Statistical Meetings, San Francisco, CA.
- 2003 International Workshop on Bayesian Data Analysis, Santa Cruz, CA.
- 2003 College of Science, Texas A&M University, TX.
- 2003 INFORMS, Institute for Operations Research and the Management Sciences Meeting, Atlanta, GA.
- 2004 SAMSI workshop on Multiscale Model Development and Control Design, NC.
- 2004 ENAR Spring Meeting, Pittsburgh, PA.
- 2004 International Society for Bayesian Analysis, World Meeting, Viña del Mar, Chile.
- 2004 36th Symposium on the Interface: Bioinformatics, Baltimore, MD.
- 2004 School of Biosciences, University of Birmingham, UK.
- 2004 TX-UK workshop on Computational Biology and Biomedicine, Glasgow, Scotland.
- 2004 Joint Statistical Meetings, Toronto, Canada.
- 2004 Department of Biostatistics, Columbia University, NY.
- 2004 Institute of Statistics and Decision Sciences, Duke University, NC.
- 2004 New York State Psychiatric Institute, Columbia University, NY.
- 2004 Department of Statistics, Wharton School, University of Pennsylvania, PA.
- 2004 The  $3^{rd}$  Winter Workshop on Statistics and Computer Science Scientific Applications of Bayesian Analysis, Ein-Gedi, Dead Sea, Israel.
- 2005 ENAR Spring Meeting, Austin, TX.
- 2005 Center for Studies on Complex Systems, University of Florence, Italy.
- 2005 Center for Statistical Sciences, Brown University, RI.
- 2005 International Conference on the Interactions between Wavelets and Splines, Athens, GA.
- 2005 Spring Research Conference, Park City, UT.
- 2005 Statistical Society of Canada Annual Meeting, Saskatoon, Saskatchewan.
- 2005 Joint Statistical Meetings, Minneapolis, MN.
- 2005 Workshop on Data Fusion in Genomics, Imperial College, London, UK.
- 2005 Center for Epidemiology and Biostatistics, University of Texas at San Antonio, TX.
- 2006 Brown Bag seminar series, Department of Statistics, Texas A&M University, TX.
- 2006 CNR Consiglio Nazionale Ricerche IMATI, Milano, Italy.
- 2006 MOLPAGE Program in "Statistical Analysis of Genetic and Gene Expression Data", Pavia, Italy.

- 2006 Workshop on Bayesian Inference in Complex Stochastic Systems, Centre for Research in Statistical Methodology, University of Warwick, UK. (Keynote Speaker)
- 2006 8th Valencia International Meeting on Bayesian Statistics, Benidorm, Alicante, Spain.
- 2006 Graybill Conference, Colorado State University, CO.
- 2006 ANNET ADHD Neuroscience Network workshop, NYU Child Study Center, NY.
- 2006 Joint Statistical Meetings, Seattle, WA.
- 2006 Department of Statistics, Rice University, Houston TX.
- 2006 Department of Biostatistics, University of North Carolina at Chapel Hill, NC.
- 2006 Department of Statistics, North Carolina State University, Raleigh, NC.
- 2007 Department of Statistics, University of Illinois, Champaign, IL.
- 2007 ENAR Spring Meeting, Atlanta, GA.
- 2007 Department of Statistics, Sam Houston State University, Huntsville, TX.
- 2007 Department of Mathematics, Imperial College, London, UK.
- 2007 NERC International Opportunity Workshop on Fish Toxicogenomics, University of Aveiro, Portugal.
- 2007 International Biometric Society Italian Region (RItl), Pisa, Italy (Plenary Lecture).
- 2007 Workshop on Bioinformatics, Genetics and Stochastic Computation: Bridging the Gap. The Banff Centre, Alberta, Canada.
- 2007 6th International Congress on Industrial and Applied Mathematics, Zurich, Switzerlan.
- 2008 Workshop on Bayesian Model Selection and Objective Methods, University of Florida, FL. (to be given)
- 2008 New Professor Lecture, Rice University, TX. (to be given)
- 2008 9th Brazilian Bayesian Meeting, San Paulo, Brazil. (to be given)
- 2008 International Society for Bayesian Analysis, 9th World Meeting, Hamilton Island, Australia. (to be given)

#### GRADUATE STUDENTS AND CURRENT EMPLOYMENT

I have advised 7 M.S. and 8 Ph.D. students, since 1996.

Texas A&M University:

JEROME F. BENNETT M.S. 1999

ANU RAMANATHAN M.S. 2002, Computer Engineering

NAIJUN SHA Ph.D. 2002

Assistant Professor of Statistics, University of Texas at El Paso, TX.

CHUN GUN PARK Ph.D. 2003

Researcher, National Cancer Center, Republic of Korea.

KYUNGDUK KO Ph.D. 2004

Assistant Professor of Statistics, Boise State University, ID.

CHANGFU XIAO M.S. 2005 DEUKWOO KWON Ph.D. 2005

Postdoctoral Fellow, NIH/NCI.

SINAE KIM Ph.D. 2006

Assistant Professor of Biostatistics, University of Michigan, MI.

Adarsh Joshi M.S. 2006 Sang Han Lee Ph.D. 2007

Postdoctoral Fellow, New York University, NY.

JAESIK JEONG Ph.D. candidate
Adarsh Joshi Ph.D. candidate

University of Florence, Italy:

LEONARDO FABBRONI Ph.D. 2001. Thesis Awarded with the S.I.S. (Italian Statistical Society)

prize Best Doctoral Thesis in Statistics.

Francesco Gabbanini Ph.D. 2002

Researcher, CNR - Consiglio Nazionale Ricerche, Italy.

University of Kent at Canterbury, UK:

ANNE KATRIN FUEHRBOETER M.S. 1996 VERONIQUE DELOUILLE M.S. 1998 ANDREW SHARKEY M.S. 1998

#### POSTDOCTORAL RESEARCHERS AND CURRENT EMPLOYMENT

Mahlet G. Tadesse 2002-2004

Assistant Professor, Georgetown University, Washington D.C.

MICHAEL SWARTZ 2004-2006 & Co-Mentor on NIH-K07CA123109-01, 2007-2011

Instructor, M.D. Anderson Cancer Center, TX.

QIANXING (QUINCY) Mo 2005-2006

Biostatistician, Memorial Sloan-Kettering Cancer Center, New York.

Ann Chen 2006-2008

#### TEACHING EXPERIENCE

## Texas A&M University:

Stat 689 Special Topics: Wavelet-Based Statistical Modeling and Applications

(Developed for graduate students in Statistics, Engineering and the Sciences)

(Spring 2004, Spring 2006, Spring 2007)

http://stat.tamu.edu/ mvannucci/webpages/stat689.html

Stat 608 Least Squares and Regression Analysis

(Spring 2004-combined with Stat408)

http://stat.tamu.edu/ mvannucci/webpages/stat408.html

Stat 408 Introduction to Linear Models

(Spring 2002, Spring 2003, Spring 2004)

http://stat.tamu.edu/ mvannucci/webpages/stat408.html

Stat 212 Principles of Statistics II

(Spring 2000, Fall 2000, Spring 2001, Spring 2002, Spring 2003, Spring 2007)

http://stat.tamu.edu/ mvannucci/webpages/stat212.html

Stat 651 Statistics in Research I

(Fall 1998, Spring 1999, Fall 1999, Spring 2000, Fall 2000)

http://stat.tamu.edu/ mvannucci/webpages/stat651.html

# University of Kent at Canterbury:

Analysis of Variance (co-taught)

Statistics for Insurance (co-taught)

## **Short-Courses:**

Wavelets and Statistical Applications

Continuing Education course, JSM 2007, Salt Lake city, UT (with Brani Vidakovic)

Bayesian Methods for High-Dimensional Data

Ph.D. Program in Statistics, University of Florence, Italy (July 2005, July 2006, June 2007)

#### PROFESSIONAL ACTIVITIES

## Memberships:

American Statistical Association (ASA)

Institute of Mathematical Statistics (IMS)

International Society for Bayesian Analysis (ISBA)

Royal Statistical Society (RSS)

## **Editorial Responsibilites:**

Deputy Editor, Bayesian Analysis (2005-)

Associate Editor:

Journal of the American Statistical Association - A&CS (2006-)

Technometrics (2004-2007)

Chemometrics and Intelligent Laboratory Systems (2001-2006)

#### Service for Professional Societies:

ISBA Prize Committee, founding member

Savage Fund Trust Committee member (2006-2009)

Mitchell Prize committee member (2005-2007)

Savage Award Committee member (2005-2006)

Associate Editor, Annotated Bibliography section, ISBA Bulletin (2005-2007)

Elected Member of the Board of Directors (2003-2005)

ASA Treasurer/Secretary of the Section on Nonparametric Statistics (2005-2007)

Chapter Representative of the Southeast Texas Chapter (2002-2005)

IMS Travel Awards Committee member (2004-2008)

New Researchers Committee member (2000-2003)

# National and International Service:

NSF Panelist for Statistics and Probability (12/2004, 01/2007)

NIH Study Section and ad-hoc Reviewer:

BDMA (03/2005, 10/2005)

Special Panel on Software Development (06/2005)

MBRS Minority Programs (03/2006)

NLM Special Panel on Informatics Training Grants (05/2006)

NSA Outside Reviewer for the AMS (American Mathematical Society) Panel (01/2007)

#### Other Service:

Scientific Committee member, CAMDA07, Valencia, Spain (2007)

Program Committee member, the Tenth ACM SIGKDD International Conference on

Knowledge Discovery and Data Mining, Seattle, WA (2004)

Chair of the Roundtable Luncheon on *Bayesian Variable Selection*, JSM, San Francisco, CA (2003). Invited Session Organizer:

Bayesian Bioinformatics, Joint Statistical Meetings, Salt Lake City, UT (2007)

Integrating Multiple Sources of Genomic Data, Joint Statistical Meetings, Minneapolis, MN (2005)

Bayesian Methods in Genomics, ENAR Spring Regional Meeting, Pittsburgh, PA (2004)

Statistical Modeling with Wavelets, ISBA World Meeting, Viña del Mar, Chile (2004)

## Texas A&M University Service:

## Departmental:

Promotion and Tenure Committee member (2006-2007)

Methods Qualifying Exam Committee member (2005-2007)

Parametric Inference Cumulative Exam Committee member (2003-2004, 2004-2005)

Faculty Recruiting Committee member (2002-2003, 2003-2004, 2005-2006)

Organizer of the Hartley Memorial Lectures (2001, 2005)

Colloquium Chair (2000-2001)

# Collegiate:

Department Head Search Advisory Committee member (2004-2005)

College of Science Diversity Committee member (2003-2004, 2004-2005)

# University:

Bioinformatics Facility Writing Group member (2005)

Chair of Search Committee, Bioinformatics Facility Core, CERH (2005)

# Reviewer (1996- ):

Annals of Applied Statistics, Annals of the Institute of Statistical Mathematics, Annals of Operations Research, Applied Statistics, Bayesian Analysis, Bioinformatics, Biometrics, Biometrika, BMC Bioinformatics, Communications in Statistics, Computational Statistics, Computational Statistics and Data Analysis, IEEE Transactions on Signal Processing, J. of the American Statistical Association, J. of Business & Economic Statistics, J. of Chemical Information and Computer Sciences, J. of Computational and Graphical Statistics, J. of Econometrics, J. of Intelligent and Fuzzy Systems, J. of the Italian Statistical Society, J. of Nonparametric Statistics, J. of Probabilistic Engineering Mechanics, J. of the Royal Statistical Society, Series B, J. of Statistical Computation and Simulation, J. of Statistical Planning & Inference, Journal of VLSI Signal Processing, Nucleic Acids Research, Sankhya, Signal Processing, Springer Verlag Book Proposals, Statistics in Medicine, Statistical Methods and Applications, Technometrics