

Curriculum Vitae

Wolfgang S. Jank

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1 Personal and Contact Information

Current Position:

Associate Professor
Department of Decision, Operations & Information Technology
Robert H. Smith School of Business
University of Maryland

Address & Contacts:

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2 Research Interests

I use modern statistical methods and concepts to study dynamics and competitive strategies in online marketplaces.

- *Spatial Marketing & Pricing:* I have developed spatio-temporal choice models to derive geo-targeting strategies, and optimal pricing and promotions across geographically correlated households. Along the same lines, I have recently started to explore new synergies in the context of pricing, optimization, and data mining.
- *Online Auctions:* I am interested in understanding competition between auctions and auction-participants. My research has introduced the notion of auction dynamics, novel methods to estimate dynamics via functional data analysis, and innovative modeling & forecasting approaches via functional differential equation models. Some of my ongoing work focuses on the effect of networks and trust signals in auctions, and novel approaches from complexity to better understand the factor of agent-interactions in online marketplaces.
- *Online Prediction Markets:* As virtual marketplaces and communities (e.g. Second Life) are receiving increasing attention, I am expanding my research to alternate online marketplaces, such as online prediction markets (or virtual stock markets). I use modern functional data models to analyze price movements of virtual stocks for motion pictures, and to provide early & dynamic forecasts of box office success.

3 Education

- 1996-2001 **Doctor of Philosophy in Statistics**
Department of Statistics, University of Florida, Gainesville
Dissertation Advisor: Prof. James G. Booth
Research: *Stochastic Estimation Methods in General Hierarchical Models*
- 1990-1996 **Bachelor & Masters in Mathematics (Major in Statistics; Minor in Business)**
Department of Mathematics, Technical University of Aachen, Germany
Masters Thesis Advisor: Prof. Hans H. Bock
Research: *Optimal and Stationary Partitions of the K-Means Algorithm*
- 1994 **European Community Fellow**
Ecole Nationale Supérieure Agronomique, Université de Montpellier, France
Research and course work in Statistics
- 1992 **European Community Fellow**
Department of Mathematics, University of York, United Kingdom
Course work in Mathematics and Statistics

4 Academic Experience

- 2007-present **Associate Professor**
Robert H. Smith School of Business, University of Maryland, College Park
Research, teaching and service for the University of Maryland
- 2001-2007 **Assistant Professor**
Robert H. Smith School of Business, University of Maryland, College Park
Research, teaching and service for the University of Maryland
- 2000-2001 **Research Assistant**
Department of Statistics, University of Florida, Gainesville
Research assistant to Prof. James G. Booth; research on Monte Carlo EM, Simulated Maximum Likelihood and related Monte Carlo methods.
- 1996-1998 **Teaching Assistant**
Department of Statistics, University of Florida, Gainesville
Lead discussion session for introductory statistics courses; taught introductory statistics courses during the summer.
- 1992-1996 **Teaching Assistant**
Department of Mathematics, Technical University of Aachen, Germany
Lead discussion session for introductory statistics and mathematics courses.

5 Other Professional Experience

- Summer 2000 **Statistical Consultant**
Department of Coastal Engineering, University of Florida, Gainesville
- Summer 1999 **Statistics Intern**
The Klemm Analysis Group, Washington, DC
- 1998-2000 **Statistical Consultant**
Department of Family, Youth and Community Sciences, University of Florida, Gainesville

6 Publications

6.1 Peer-Reviewed Journal Papers

1. Wang S, Jank W, Shmueli G and Smith P (2008) “Modeling Price Dynamics in eBay Auctions Using Principal Differential Analysis.” Forthcoming at the *Journal of the American Statistical Association*.
2. Haruvy E, Popkowski Leszczyc P, Carare O, Cox J, Greenleaf E, Jank W, Jap S, Park Y-H, and Rothkopf M (2008) “Competition between Auctions.” Forthcoming at a special issue of *Marketing Letters*, based on a special invited session at the 7th Triennial Invitational Choice Symposium, at the Wharton School of Business, University of Pennsylvania, June 2007.
3. Bapna R, Jank W and Shmueli G (2008) “Price Formation and its Dynamics in Online Auctions.” *Decision Support Systems*, **44** (3), p. 641–656.
4. Bapna R, Jank W and Shmueli G (2008) “Consumer Surplus in Online Auctions.” *Information Systems Research*, **19** (2), June Issue.
5. Reithinger F, Jank W, Tutz G and Shmueli G (2008) “Smoothing Sparse and Unevenly Sampled Curves using Semiparametric Mixed Models: An Application to Online Auctions.” *Journal of the Royal Statistical Society - Series C*, **57** (2) p. 127–148.
6. Wang S, Jank W and Shmueli G (2008) “Explaining and Forecasting Online Auction Prices and their Dynamics using Functional Data Analysis.” *Journal of Business and Economic Statistics*, **26** (2), p. 144–160.
7. Shmueli G, Jank W and Hyde V (2008) “Transformations for Semi-Continuous Data.” *Computational Statistics and Data Analysis*, **52** (8), p. 4000–4020.
8. Tu Y, Ball M and Jank W (2008) “Estimating Flight Departure Delay Distributions A Statistical Approach with Long-Term Trend and Short-Term Pattern.” *Journal of the American Statistical Association*, **103** (481), p. 112–125.
9. Foutz N and Jank W (2007) “The Wisdom of Crowds: Pre-release Forecasting via Functional Shape Analysis of the Online Virtual Stock Market.” *Marketing Science Institute Reports*, [07-114].
10. Shmueli G, Russo R and Jank W (2007) “The BARRISTA: A model for Bid Arrivals in Online Auctions.” *The Annals of Applied Statistics*, **1** (2), 412–441.
11. Jank W and Shmueli G (2007) “Modeling Concurrency of Events in Online Auctions via Spatio-Temporal Semiparametric Models.” *Journal of the Royal Statistical Society - Series C*, **56** (1), p.1–27.
12. Hyde V, Jank W and Shmueli G (2006) “Investigating Concurrency in Online Auctions through Visualization.” *The American Statistician*, **60** (3), p. 241–250.
13. Jank W and Shmueli G (2006) “A Special Issue on Statistical Challenges and Opportunities in Electronic Commerce Research.” *Statistical Science*, **21** (2), p. 113–115.
14. Jank W and Shmueli G (2006) “Functional Data Analysis in Electronic Commerce Research.” *Statistical Science*, **21** (2), p. 155–166.

15. Jank W and Kannan PK (2006) “Dynamic E-Targeting using Learning Spatial Choice Models.” *Journal of Interactive Marketing*, **20** (3–4), p. 30–42.
16. Jank W (2006) “Ascent EM for Fast and Global Model-Based Clustering: An Application to Curve-Clustering of Online Auctions.” *Computational Statistics and Data Analysis*, **51** (2), p. 747–761 .
17. Jank W (2006) “Implementing and Diagnosing the Stochastic Approximation EM algorithm.” *Journal of Computational and Graphical Statistics*, **15** (4), p. 1–27.
18. Jank W (2006) “Efficient Simulated Maximum Likelihood with an Application to Online Retailing.” *Statistics and Computing*, **16** (2), p. 111–124.
19. Shmueli G, Jank W, Aris A, Plaisant C and Shneiderman B (2006) “Exploring Auction Databases through Interactive Visualization.” *Decision Support Systems*, **42** (3), p. 1521–1538.
20. Jank W and Kannan PK (2005) “Understanding geographical markets of online firms using spatial models of customer choice.” *Marketing Science*, **24** (4), p. 623–634.
21. Shmueli G and Jank W (2005) “Visualizing Online Auctions.” *Journal of Computational and Graphical Statistics*, **14** (2), p. 299 - 319.
22. Caffo BS, Jank W and Jones GL (2005) “Ascent-Based Monte Carlo EM.” *Journal of the Royal Statistical Society - Series B*, **67** (2), p. 235–252.
23. Jank W, Golden B and Zantek P (2005) “Old World vs. New World: Evolution of Nobel Price Shares.” *INFOR*, **43** (1), March Issue.
24. Jank W (2004) “Quasi-Monte Carlo Sampling to Improve the Efficiency of Monte Carlo EM.” *Computational Statistics and Data Analysis*, **48** (4), p.685–701.
25. Jank W and Booth JG (2003) “Efficiency of Monte Carlo EM and Simulated Maximum Likelihood in Two-Stage Hierarchical models.” *Journal of Computational and Graphical Statistics*, **12** (1), p.214–229.
26. Perkins DF, Luster T and Jank W (2002) “Protective factors that decrease the likelihood of purging for physically abused females.” *Journal of Adolescent Research*, **17** (4), p.377–400.
27. Booth JG, Hobert JP and Jank W (2001) “A survey of Monte Carlo algorithms for maximizing the likelihood of a two-stage hierarchical model.” *Statistical Modelling*, **1** (4), p.333–349.

6.2 Peer-Reviewed Book Chapters

28. Jank W and Shmueli G (2008) “Forecasting Online Auctions using Dynamic Models.” Forthcoming at Soares and Ghani (Eds.) *Data Mining for Business Applications*, IOS Press.
29. Jank W and Kannan PK (2007) “Dynamic Spatial Models in Online Markets.” Forthcoming at Jank and Shmueli (Eds.) *Statistical Methods in eCommerce Research*, Wiley & Sons.

30. Jank W, Shmueli G & Wang, S (2007) “Modeling Price Dynamics in Online Auctions via Regression Trees.” Forthcoming at Jank and Shmueli (Eds.) *Statistical Methods in eCommerce Research*, Wiley & Sons.
31. Hyde V, Jank W, & Shmueli G (2007) “A Family of Growth Models for Representing the Price Process in Online Auctions.” Forthcoming at Jank and Shmueli (Eds.) *Statistical Methods in eCommerce Research*, Wiley & Sons.
32. Jank W and Shmueli G (2006) “Studying Heterogeneity of Price Evolution in eBay Auctions via Functional Clustering.” Forthcoming at Adomavicius and Gupta (Eds.) *Handbook of Information Systems Series: Business Computing*, Elsevier.
33. Jank W (2006) “The EM algorithm, Its Stochastic Implementation and Global Optimization: Some Challenges and Opportunities for OR.” In Alt, Fu, and Golden (Eds.) *Topics in Modeling, Optimization, and Decision Technologies: Honoring Saul Gass’ Contributions to Operations Research*, Springer Verlag, NY, p.367–392.
34. Jank W, Shmueli G, Plaisant C, and Shneiderman B (2006) “Visualizing Functional Data with an Application to eBays Online Auctions.” Forthcoming in Chen, Haerdle and Unwin (Eds.) *Handbook on Computational Statistics on Data Visualization*, Springer Verlag, Heidelberg.
35. Shmueli G and Jank W (2005) “Modeling the Dynamics of Online Auctions: A Modern Statistical Approach.” Forthcoming in Kauffman and Tallon (Eds.) *Economics, Information Systems and Ecommerce Research II: Advanced Empirical Methods*, M.E. Sharpe Publishers, Armonk, NY.
36. Jank W (2004) “Fast and Efficient Model-Based Clustering with the Ascent-EM Algorithm.” In Golden, Raghavan and Wasil (Eds.) *The Next Wave in Computing, Optimization and Decision Technologies*, Springer Verlag, NY, p.201–212.

6.3 Peer-Reviewed Conference Papers

37. Jank W, Foutz N and James G (2008) “Early and Dynamic Forecasting of New Product Demand Using Functional Models and Online Prediction Markets.” In the proceedings of *The Fourth Symposium on Statistical Challenges in Electronic Commerce Research*, NYU, New York, NY, May 18–19, 2008.
38. Yahav I and Jank W (2008) “On the Existence of E-Loyalty Networks in eBay Auctions and Their Structure.” In the proceedings of *The Fourth Symposium on Statistical Challenges in Electronic Commerce Research*, NYU, New York, NY, May 18–19, 2008.
39. Zhang S and Jank W (2008) “An Automated and Data-Driven Bidding Strategy for Online Auctions.” In the proceedings of *The Fourth Symposium on Statistical Challenges in Electronic Commerce Research*, NYU, New York, NY, May 18–19, 2008.
40. Lin M and Jank W (2008) “Bidder Migration and Its Price Effects on Online Auctions.” In the proceedings of *The 14th Americas Conference on Information Systems (AMCIS)*, Toronto, Ontario, August 14-17 August.
41. Jank W and Foutz N (2008) “Pre-release Forecasting Using Online Virtual Stock Markets.” In the proceedings of a special session on *Marketing and Financial Performance* at the *2008 Marketing Science Conference*, June 12–14, 2008, Vancouver, CA.

42. Jank W and Foutz N (2007) “The Wisdom of Crowds: Pre-release Forecasting of Box-Office Revenue via Functional Shape Analysis of the Online Virtual Stock Market.” In the proceedings of the *2007 Conference on Information Systems and Technology (CIST)*, November 3-4, 2007, Seattle, WA (in conjunction with INFORMS 2007).
43. Jank W and Foutz N (2007) “Using Virtual Stock Exchanges to Forecast Box-Office Revenue via Functional Shape Analysis.” In the proceedings of the *Second Workshop on Prediction Markets*, June 12, 2007, San Diego, California (in conjunction with *ACM Conference on Electronic Commerce*).
44. Jank W and Foutz N (2007) “Functional Shape Analysis for Forecasting Box-Office Revenue via Virtual Stock Exchanges.” In the proceedings of the *Fourth Marketing Dynamics Conference*, August 22-24, 2007, University of Groningen, The Netherlands.
45. Hyde V, Jank W and Shmueli G (2007) “A Family of Growth Models for Representing the Price Evolution in Online Auctions.” In the proceedings of the *Ninth International Conference on Electronic Commerce (ICEC 07)*, August 19–22, 2007, University of Minnesota, Minneapolis, MN.
46. Bailey J, Jank W, Lin M, Lucas H, and Viswanathan S (2007) “Estimating Online Sales Distribution: the Short End of the Long Tail.” In the proceedings of the *Third Symposium on Statistical Challenges in eCommerce Research (SCECR 07)*, May 19–20, 2007, University of Connecticut.
47. Lin M and Jank W (2007) “Bidder Migration in Online Auctions.” In the proceedings of the *Third Symposium on Statistical Challenges in eCommerce Research (SCECR 07)*, May 19–20, 2007, University of Connecticut.
48. Dass M, Jank W, Reddy S, Shmueli G and Wang S (2007) “Dynamic Price Forecasts in Online Indian Art Auctions.” In the proceedings of the *Third Symposium on Statistical Challenges in eCommerce Research (SCECR 07)*, May 19–20, 2007, University of Connecticut.
49. Hyde V, Jank W and Shmueli G (2007) “A Family of Growth Models for Representing the Price Evolution in Online Auctions.” In the proceedings of the *Third Symposium on Statistical Challenges in eCommerce Research (SCECR 07)*, May 19–20, 2007, University of Connecticut.
50. Buono P, Plaisant C, Simeone A, Aris A, Shneiderman B, Shmueli G and Jank W (2007) “Similarity-Based Forecasting with Simultaneous Previews: A River Plot Interface for Time Series Forecasting.” In the proceedings of the *11th International Conference on Information Visualisation*, July 2007, Zürich, Switzerland.
51. Koppius O, Mithas S, Jank W, Shmueli G and Jones J (2006) “Bidding Dynamics in B2B Reverse Auctions.” In the *Proceedings of the International Symposium of Information Systems*, December 16–18, 2006, Indian School of Business, Hyderabad.
52. Jank W, Shmueli G and Wang S (2006) “Forecasting Online Auctions using Dynamic Models.” In the *Proceedings of the KDD 2006 Workshop on Theory and Practice of Temporal Data Mining*, August 20, 2006, Philadelphia, Pennsylvania.
53. Jank W, Shmueli G and Wang S (2006) “Forecasting Online Auctions using Dynamic Models.” In the *Proceedings of the KDD 2006 Workshop on Data Mining for Business Applications*, August 20, 2006, Philadelphia, Pennsylvania.

54. Jank W, Shmueli G and Wang S (2006) “Dynamic, Real-time Forecasting of Online Auction via Functional Models.” In the *Proceedings of the Twelfth ACM SIGKDD International Conference On Knowledge Discovery and Data Mining (KDD2006)*, August 20–23, 2006, Philadelphia, Pennsylvania.
55. Jank W and Kannan PK (2005) “Dynamic Scoring of Customers using Learning Spatial Choice Models.” In the *Proceedings of the 2005 International Workshop on Customer Relationship Management: Data Mining Meets Marketing*, November 18–19, 2005, New York University, New York, NY.
56. Aris A, Shneiderman B, Plaisant C, Shmueli G and Jank W (2005) “Representing Unevenly-Spaced Time Series Data for Visualization and Interactive Exploration.” In the *Proceedings of International Conference on Human-Computer Interaction (INTERACT)*, 12–16 September 2005, Rome, Italy.
57. Jank W (2004) “Dynamics of Online Auctions.” In the *Proceedings of the Seventh International Conference on Modeling, Computation and Optimization in Information Systems and Management Sciences (MCO)*, July 1–3, 2004, Metz, France.

6.4 Unreviewed Conference Papers

58. Yahav I and Jank W (2008) “On the Existence of E-Loyalty Networks in eBay Auctions and Their Structure.” *The 9th INFORMS Telecommunications Conference*, R.H. Smith School of Business, College Park, MD, March 27–29, 2008.
59. Jank W, Foutz N and James G (2008) “Forecasting with Functional Data in Ecommerce.” *2008 Joint Statistical Meetings*, August 3–7, 2008, Denver, CO.
60. Heath J, Fu M and Jank W (2008) “Global Optimization with Model Reference Adaptive Search and Expectation-Maximization.” *2008 Joint Statistical Meetings*, August 3–7, 2008, Denver, CO.
61. Heath J, Fu M and Jank W (2007) “Global Optimization and Landscape Analysis for Clustering.” *2007 INFORMS Annual Meeting*, Seattle, WA, November 4–7, 2007.
62. Foutz N and Jank W (2007) “The Wisdom of Crowds: Using Online Virtual Stock Market to Predict Innovation Success.” *2007 INFORMS Marketing Science Conference*, June 28–30, Singapore.
63. Dass M, Jank W, Reddy S, Shmueli G and Wang S (2007) “Dynamic Price Forecasts in Online Auctions: An Application to Indian Art Auctions of Heterogeneous Products.” *2007 INFORMS Marketing Science Conference*, June 28–30, Singapore.
64. Varadhan R, Caffo B and Jank W (2007) “Improving the Efficiency of the Monte-Carlo EM Algorithm Using Squared Iterative Methods” *2007 Joint Statistical Meetings*, July 29-August 2, Salt Lake City, Utah.
65. Shmueli G, Jank W and Bapna R (2005) “Sampling eCommerce Data from the Web: Methodological and practical Issues.” In the *2005 Proceedings of the American Statistical Association*, August 6-11, 2005, Minneapolis, Minnesota.
66. Jank W (2005) “Stochastic Variants of EM: Monte Carlo, Quasi-Monte Carlo and More.” In the *2005 Proceedings of the American Statistical Association*, August 6-11, 2005, Minneapolis, Minnesota.

6.5 Manuscripts under Review at Journals & Conferences

67. Jank W, Shmueli G, Dass M, Yahav, I and Zhang S (2008) “Statistical Challenges in eCommerce: Modeling Dynamic and Networked Data.” Under review for *INFORMS Tutorials in Operations Research*, 2008 edition, in connection with the 2008 INFORMS Annual Meeting in Washington, DC; (Invited chapter).
68. Dass M, Jank W and Shmueli G (2008) “Dynamic Price Forecasting In Simultaneous Online Art Auctions.” Under review at *Marketing Science*; (First round).
69. Foutz N and Jank W (2007) “The Wisdom of Crowds: Pre-release Forecasting via Functional Shape Analysis of the Online Virtual Stock Market.” Under review at *Marketing Science*; (Revision invited).
70. Heath J, Fu M and Jank W (2007) “New Global Optimization Algorithms for Model-Based Clustering.” Under review at the *Journal of Computational and Graphical Statistics*; (Revision completed).
71. Heath J, Fu M and Jank W (2007) “Global Convergence of Model Reference Adaptive Search for Gaussian Mixtures.” Under review at the *Annals of Statistics*; (First Round).
72. Shmueli G, Jank W and Bapna R (2006) “A Pre-Theory Functional Approach for Detecting Private- or Affiliated-Value Auction Settings.” Under review at *Management Science*; (Revision invited).

6.6 Technical Reports and Other Manuscripts

(All available at www.smith.umd.edu/faculty/wjank/publications.htm)

73. Wang S, Jank W, Shmueli G and Smith P (2007) “Modeling Price Dynamics in eBay Auctions Using Principal Differential Analysis.” *Economics of Networks Abstracts*, Working Paper Series, 4 (32): June 8, 2007.
74. Jank W and Shmueli G (2005) “Studying Price-Dynamics and Auction-Energy in Functional Models.” Technical Report, Robert H. Smith School of Business, University of Maryland.
75. Reindorp M, Jank W and Rashid L (2005) “The Right Auction At the Right Price.” Technical Report, Robert H. Smith School Research Paper No. RHS-06-009. Available at SSRN: <http://ssrn.com/abstract=904626>
76. Jank W and Shmueli G (2005) “Profiling Price Dynamics in Online Auctions Using Curve Clustering.” Technical Report, Robert H. Smith School Research Paper No. RHS-06-004. Available at SSRN: <http://ssrn.com/abstract=902893>
77. Shmueli G, Russo R and Jank W (2004) “Modeling Bid Arrivals in Online Auctions.” Technical Report, Robert H. Smith School Research Paper No. RHS-06-001. Available at SSRN: <http://ssrn.com/abstract=902868>
78. Jank W (2004) “Ascent EM for Efficient Curve-Clustering in Large Online Auction Databases.” Technical Report, Robert H. Smith School Research Paper No. RHS-06-008. Available at SSRN: <http://ssrn.com/abstract=902908>

7 Awards and Grants

2008 Nomination for the University of Maryland *Faculty Research Banner* for research on *Consumer Surplus in Online Auction*. Nominated faculty have achieved significant accomplishments in their field of study, and are featured on banners to be showcased around the University of Maryland campus by the opening of the 2008-9 academic year. These faculty will also be highlighted on the newly designed university web site.

Legg-Mason Teaching Innovation Award finalist.

2007 *Travel Award* by the Smith BIE Awards Committee, University of Maryland, to travel to the International Symposium on Business and Industrial Statistics, Azores, Portugal, and to the Marketing Dynamics Conference, Groningen, The Netherlands, both August 2007; awarded \$2,000.

2006 *Top 15% Teaching Award Recipient* (Category 1 & 3): Category 1 awards go to the Top 15% of full-time faculty. Category 3 awards go to the top 15% of faculty teaching in the MBA core and/or other courses with more than 65 students.

Travel Award by the Smith BIE Awards Committee, University of Maryland, to travel to the Compstat 2006 Satellite Workshop on Data and Information Visualization, Berlin, August 2006; awarded \$1,200.

2005 *First Interdisciplinary Symposium on Statistical Challenges and Opportunities in Electronic Commerce Research*; Proposal to the National Science Foundation (NSF) Division of Information and Intelligent Systems (IIS); awarded \$30,000

2004 *Teaching and Technology Enhancement Award* by the Smith Technology Integration Initiative (STI), University of Maryland, for the proposal *Information Visualization for the Classroom*; awarded \$8,000. This project was conducted with MBA alumni Diswa Malu and presented to several MBA classes in the Spring 2005. Results of this projects are summarized at <http://www.devsmith.umd.edu/dit/infovis/index.html>

2003 *Teaching and Technology Enhancement Award* by the Smith Technology Integration Initiative (STI), University of Maryland, for the proposal *Learning Online Auctions using Modern Technology: Incorporating eBay and SAS Enterprise Miner into the classroom*; awarded \$8,000. As a result of this project, several MBA classes use projects (and data) related to online auctions. Also, the software *SAS Enterprise Miner* is now a permanent element of the MBA elective class BUDT 733 and adopted by Smith IT to run on the Smith Portal (portal.rhsmith.umd.edu).

Research Award by the Center of Electronic Markets and Enterprises (CEME), University of Maryland, for the proposal *Statistical Analysis of Online Markets: Exploring and Characterizing Lucrative Markets*; awarded \$8,000

Summer Research Award by the University of Maryland's General Research Board (UMD-GRB) for the proposal *Analyzing spatially referenced data from large databases*; awarded \$8,750

Research Award by the Netcentricity Research Laboratory, University of Maryland, for the proposal *Investigating Online Auctions*; awarded \$2,000

Research Award by the Center of Electronic Markets and Enterprises (CEME), University of Maryland, for hardware support on research related to open source and online auctions projects; awarded \$3,500.

Young Researcher Travel Award by the Institute of Mathematical Statistics for travel to the Sixth North American New Researchers Conference, University of California, Davis; awarded \$500

2000 *Graduate Student Travel Award* by the University of Florida for travel to the Euroworkshop on Statistical Modelling (Mixed Models) at Schloß Höhenried, Germany; awarded \$250

Young Researcher Travel Award by the European Community for travel to the Euroworkshop on Statistical Modelling (Mixed Models) at Schloß Höhenried, Germany; awarded \$450

1994 *Exchange Student Fellowship* by the European Community for 6 month study at the University of Montpellier, France, under the ERASMUS program; awarded \$1,500

1992 *Exchange Student Fellowship* by the European Community for 4 month study at the University of York, UK, under the ERASMUS program; awarded \$1,200

8 Conferences and Conference-Sessions Organized

8.1 Conferences

2008 Program Chair of the ASA's Section on Statistical Computing, *Joint Statistical Meetings* (JSM), Denver, CO, August 2008.

Program Committee member of the *International Symposium on Business and Industrial Statistics (ISBIS-2008)*, Prague, Czech Republic, July 2008.

Program Committee member of the Industrial/Government track for the *14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2008)*, Las Vegas, NV, August 24–27, 2008.

2007 Program Committee member of the *BI'07 Business Intelligence Workshop*, to be held in conjunction with the Portuguese Conference on Artificial Intelligence conference (EPIA), Guimaraes, Portugal, December 2007

Program Committee member of the PAKDD 2007's *Workshop on Data Mining for Business*, Nanjing, China, May 2007.

2005 Program Chair/ Organizer of the *First Interdisciplinary Symposium on Statistical Challenges and Opportunities in Electronic Commerce Research*, University of Maryland, College Park, MD, May 22–23, 2005

8.2 Conference-Sessions

2008 Organized Invited Session on *Data Mining in Telecommunication* at the *INFORMS Telecom Conference*, Smith School of Business, College Park, MD, March 2008.

Organized Invited Session on *Data Mining and Applications* at the *INFORMS Annual Meeting*, Washington, DC, October 12–15, 2008.

Organized Invited Session on *Electronic Commerce* at the *International Symposium on Business and Industrial Statistics (ISBIS-2008)*, Prague, Czech Republic, July 2008.

2007 Organized Invited Session on *Data Mining, Statistics and eCommerce* at the INFORMS Annual Meeting, Seattle, WA, November 4–7, 2007.

Organized Invited Session on *Statistics in Electronic Commerce Research* at the International Symposium on Business and Industrial Statistics, Azores, Portugal, August 18–20, 2007. (Held in conjunction with the 56th Session of the International Statistical Institute (ISI)).

2006 Organized Invited Session on *Data Mining Applications in eCommerce* at the INFORMS Annual Meeting, Pittsburgh, PA, November 5–8, 2006.

2005 Organized Invited Session on *Statistical Methods in Electronic Commerce Research* at the Joint Statistical Meetings, Minneapolis, MN, August 7–11, 2005.

Organized Invited Session on *Statistical Methods for Network Data* at the 9th INFORMS Computing Conference, Annapolis, MD, January 5–7, 2005.

8.3 Conference-Panels

2006 Organized Invited Panel on *Computational Statistics and its Challenges in eCommerce* at the 2nd Statistical Challenges in E-Commerce Research Symposium, Carlson School of Management, University of Minnesota, Minneapolis, MN, May 22–23, 2006.

9 Presentations at Departments and Conferences

9.1 Invited Tutorials

INFORMS 2008 Annual Meeting, Washington, DC, October 12–15, 2008; Tutorial on *Statistics and eCommerce*.

9.2 Invited Department Presentations

2008 Department of Statistics, The George Washington University, Washington, DC, February 2008; Presentation on *Functional Shape Analysis to Forecast Box-Office Revenue using data from Virtual Stock Exchanges*

2007 Department of Decision Sciences, INSEAD, Fontainebleau, France, October 2007; Presentation on *Using Functional Shape Analysis to Forecast Box-Office Revenue via Virtual Stock Exchanges*

Department of Electronic Commerce, University of Frankfurt, Germany, October 2007; Presentation on *Competition between Online Auctions: Why what happens in the neighbor auction also matters*.

Department of Information Systems and Operations Management, University of Florida, Gainesville, FL, October 2007; Presentation on *Functional Shape Analysis to Forecast Box-Office Revenue using Virtual Stock Exchanges*

Desautels Faculty of Management, McGill University, Montréal, Canada, October 2007; Presentations on *Functional Shape Analysis to Forecast Box-Office Revenue using Virtual Stock Exchanges* and on *Functional Data Analysis: An Introduction*

Department of Biostatistics, Johns Hopkins University, Baltimore, MD, September 2007; Presentation on *Functional Shape Analysis to Forecast Box-Office Revenue using data from Virtual Stock Exchanges*

- Institute for Economics and Social Sciences, University of Bonn, Germany, January 2007; Presentation on *Dynamic Forecasting in Online Auctions using Functional Data Analysis*
- 2006 Special Lecture, Department of Agricultural and Resource Economics, University of Maryland, College Park, MD, December 2006; Presentation on *The EM algorithm and its Stochastic Implementations*
- Washington Area Econometrics Workshop, Department of Economics, University of Maryland, College Park, MD, October 2006; Presentation on *Concurrency of Online Auctions using Spatio-Temporal Semiparametric Models*
- Department of Statistics, University of California at Davis, CA, October 2006; Presentation on *Modeling concurrency of events in online auctions via spatio-temporal semiparametric models.*
- Department of Information and Operations Management, Marshall School of Business, University of Southern California, CA, October 2006; Presentation on *Modeling concurrency of events in online auctions via spatio-temporal semiparametric models.*
- Washington Statistical Society, Washington, DC, April 2006; Presentation on *Stochastic Variants of EM: Monte Carlo, Quasi-Monte Carlo and More*
- Center For Advanced Research, PricewaterhouseCoopers LLP, San Jose, CA, February 2006; Presentation on *Modeling concurrency of events in online auctions via spatio-temporal semiparametric models*
- Department of Psychology & Management, McGill University, Montréal, Canada, February 2006; Presentation on *Statistical Challenges in eCommerce Research: Dynamic Price Forecasting in Online Auctions using Functional Models*
- 2005 Department of Mathematics, University of Maryland, College Park, MD, October 2005; Presentation on *Stochastic Variants of EM: Monte Carlo, Quasi-Monte Carlo and More*
- Department of Statistics, Cornell University, Ithaca, NY, September 2005; Presentation on *Functional Data Analysis in E-Commerce: Opportunities, Challenges and a special look at eBays Online Auctions*
- Department of Mathematics, Rheinisch-Westfälische Technische Hochschule Aachen, Aachen, Germany, July 2005; Presentation on *Functional Data Analysis in E-Commerce: Opportunities, Challenges and a special look at eBays Online Auctions*
- Department of Statistics, Ludwig-Maximilians-Universität München, Munich, Germany, July 2005; Presentation on *Functional Data Analysis in E-Commerce: Opportunities, Challenges and a special look at eBays Online Auctions*
- AT&T Research Labs, Florham Park, NJ, February 2005; Presentation on *Online Auctions on eBay: A Statistical Exploration of Price Formation Dynamics via Functional Data Analysis and Interactive Visualization*
- 2004 Department of Management, ERASMUS University, Rotterdam, The Netherlands, December 2004; Presentation on *Dynamic Models for Online Auctions*
- Statistics Consortium, University of Maryland, College Park, MD, November 2004; Presentation on *Dynamic Models for Online Auctions*
- 2002 Department of Decision and Information Technologies, University of Maryland, College Park, MD, May 2002; Presentation on *A Quasi-Monte Carlo EM Algorithm*

Department of Statistics, University of Kentucky, Lexington, KY, April 2002; Presentation on *Efficiency of Monte Carlo EM and Simulated Maximum Likelihood in Two-Stage Hierarchical Models*

Department of Mathematics, University of Maryland, College Park, MD, February 2002; Presentation on *Efficiency of Monte Carlo EM and Simulated Maximum Likelihood in Two-Stage Hierarchical Models*

2001 Department of Decision and Information Technologies, University of Maryland, College Park, MD, January 2001; Presentation on *Efficiency of Monte Carlo EM and Simulated Maximum Likelihood*

Department of Statistics, University of Florida, Gainesville, FL, May 2001; Presentation on *Efficiency of Monte Carlo EM and Simulated Maximum Likelihood*

9.3 Invited Conference Presentations

2007 INFORMS 2007 Annual Meeting, Seattle, WA, November 4–7, 2007; Presentation on *Forecasting Box-Office Revenue via Virtual Stock Exchanges using Functional Shape Analysis*.

INFORMS 2007 Annual Meeting, Seattle, WA, November 4–7, 2007; Presentation on *Concurrency of Online Auctions*.

INFORMS 2007 Annual Meeting, Seattle, WA, November 4–7, 2007; Presentation on *Statistical Challenges in eCommerce Research*.

International Symposium on Business and Industrial Statistics, Azores, Portugal, August 18–20, 2007; *Forecasting Box-Office Revenue via Virtual Stock Exchanges using Functional Shape Analysis*.

Seventh Triennial Invitational Choice Symposium 2007, Wharton School, University of Pennsylvania, June 13–17, 2007; *Competition between Auctions: Some Thoughts and Ideas by a Statistician*.

2006 INFORMS 2006 Annual Meeting, Pittsburgh, PA, November 2006; Presentation on *Predicting Price in Concurrent Online Auctions*.

INFORMS 2006 Annual Meeting, Pittsburgh, PA, November 2006; Presentation on *Dynamic Price Forecasts in Online Auction Using Functional Models*.

Compstat 2006 Satellite Workshop on Data and Information Visualization 2006, Berlin, Germany, August 2006, Presentation on *Visualizing Functional Data with an Application to eBays Online Auctions*.

KDD2006 Workshop on Theory and Practice of Temporal Data Mining, Philadelphia, PA, August 2006; Presentation on *Forecasting Online Auctions using Dynamic Models*.

Statistics at the Frontiers of Science Workshop, Banff, CA, June 2006, Presentation on *Application of Functional Data Analysis to Electronic Commerce Research: A few Ideas and Challenges for Statistics*.

2nd Statistical Challenges in E-Commerce Research Symposium, Carlson School of Management, University of Minnesota, Minneapolis, MN, May 2006; Panellist on *Computational Statistics and its Challenges in eCommerce*.

- 2005 Joint Statistical Meetings (JSM), Minneapolis, MN, August 2005; Presentation on *Stochastic Variants of EM: Monte Carlo, Quasi-Monte Carlo and More*.
- Ninth INFORMS Computing Society Conference (ICS), Annapolis, Maryland, January 2005; Presentation on *Fast Model-Based Clustering using Ascent-EM*
- 2004 INFORMS 2004 Annual Meeting, Denver, Colorado, October 2004; Presentation on *Dynamic Models for Online Auctions*.
- 2003 Sixth New Researchers Conference (NRC), University of California at Davis, July 2003; Presentation on *Ascent Monte Carlo EM*.
- 2000 Euroworkshop on Statistical Modelling (Mixed Models), Schloß Höhenried, Germany, September 2000; Presentation on *Efficiency of Monte Carlo EM and Simulated Maximum Likelihood*.

9.4 Contributed Conference Presentations

- 2007 Conference on Information Systems and Technology (CIST), held in conjunction with INFORMS, Seattle, WA, November 3–4, 2007; Presentation on *The Wisdom of Crowds: Pre-release Forecasting of Box-Office Revenue via Functional Shape Analysis of the Online Virtual Stock Market*.
- Marketing Dynamics Conference 2007, University of Groningen, The Netherlands, August 22–24, 2007; Presentation on *Forecasting Box-Office Revenue via Virtual Stock Exchanges using Functional Shape Analysis*.
- Second Workshop on Prediction Markets, held in conjunction with ACM Conference on Electronic Commerce (EC’07), San Diego, CA, June 12, 2007; Presentation on *Forecasting Box-Office Revenue via Virtual Stock Exchanges using Functional Shape Analysis*.
- 2006 KDD2006 Workshop on Data Mining for Business Applications, Philadelphia, PA, August 2006; Presentation on *Forecasting Online Auctions using Dynamic Models*.
- Twelfth ACM SIGKDD International Conference On Knowledge Discovery and Data Mining (KDD2006), Philadelphia, PA, August 2006; Poster on *Dynamic, Real-time Forecasting of Online Auctions via Functional Models*.
- 38th Symposium on the interface of statistics, computing science, and applications (Interface), Pasadena, CA, May 2006; Presentation on *Concurrency in Online Auctions using Spatio-Temporal Semiparametric Models*.
- 2005 2005 International Workshop on Customer Relationship Management: Data Mining Meets Marketing, New York University, New York, NY, November 2005; Presentation on *Dynamic Scoring of Customers using Learning Spatial Choice Models*.
- European Meeting of Statisticians (EMS), Oslo, Norway, July 2005; Presentation on *Online Auctions on eBay: A Statistical Exploration of Price Formation Dynamics via Functional Data Analysis*.
- 37th Symposium on the interface of statistics, computing science, and applications (Interface), St. Louis, Missouri, June 2005; Presentation on *Online Auctions on eBay: A Statistical Exploration of Price Formation Dynamics via Functional Data Analysis*.
- 2004 Second Workshop on Monte Carlo Methods, Harvard University, Boston, MA, August 2004; Presentation on *Ascent Monte Carlo EM*.

Joint Statistical Meetings (JSM), Toronto, Canada, August 2004; Presentation on *Dynamic Profiling of Online Auctions*.

Fifth International Conference on Modelling, Computation and Optimization (MCO) in Information Systems and Management Sciences, Metz, France, July 2004; Presentation on *Dynamic Modelling of Online Auctions*.

Eleventh Annual Spring Research Conference (SRC) on Statistics in Industry and Technology, National Institute of Standards and Technology (NIST), Gaithersburg, Maryland, May 2004; Presentation on *Dynamic Profiling of Online Auctions using Curve Clustering*.

1999 Joint Statistical Meetings (JSM), Baltimore, Maryland, August 1999; Presentation on *Efficiency Comparisons of Monte Carlo Estimation Techniques for Generalized Linear Mixed Models*.

1996 German Classification Society (GFK), Freiburg, Germany, August 1996; Presentation on *Optimal and Stationary Partitions generated by the K-Means Algorithm*.

10 Media Coverage

2008 Interview by Reuters, the New York Times and Wired.Com on Consumer Surplus in Online Auctions.

2006 Interview by the Minneapolis Startribune on Online Auction Research.

2005 Interview by the German Press Agency (DPA) on Online Auction Research, featured in several German print and online media.

Television interview by German Television (WDR) on Online Auction Research, featured in evening news hour.

11 Students Supervised

11.1 Dissertations Chaired

11.1.1 Former PhD Students

2007 *Shanshan Wang* DemandTec Inc., San Carlos, CA (Dissertation Co-Chair, jointly with Prof. Paul Smith, Department of Mathematics, University of Maryland).

Valerie Hyde accenture, New York, NY (Dissertation Co-Chair, jointly with Prof. Galit Shmueli, Department of Decision & Information Technology, University of Maryland).

Jeffrey Heat Assistant Professor at Centre College (Dissertation Co-Chair, jointly with Prof. Michael Fu, Department of Decision & Information Technology, University of Maryland).

2006 *Yufeng Tu* Assistant Professor at Touro University (Dissertation Co-Chair, jointly with Prof. Michael Ball, Department of Decision & Information Technology, University of Maryland).

11.2 Research Advisor

- 2007-current *Inbal Yahav* (Doctoral student in the Department of Decision & Information Technology, Robert H. Smith School of Business, University of Maryland); Research Advisor (independent research project).
- 2007-current *Daniel Malter* (Doctoral student in the Department of Management & Organization; Robert H. Smith School of Business, University of Maryland); Research Advisor (independent research project).
- 2007-current *Shu Zhang* (Doctoral student in the Applied Math & Scientific Computation program, University of Maryland); Research Advisor (independent research project).
- 2006-current *Mingfeng Lin* (Doctoral student in the Department of Decision & Information Technology, Robert H. Smith School of Business, University of Maryland); Research Advisor (independent research project).
- 2005 *Guojing Tang* (Doctoral student in the Statistics program, Department of Mathematics, University of Maryland); Research Advisor (independent research project).
- 2004 *Matthew Reindorp* (Doctoral student in the Department of Decision & Information Technology, Robert H. Smith School of Business, University of Maryland); Research Co-Advisor (independent research project); (jointly with Prof. Louiqa Rashid, D&IT).

11.3 Dissertation Committee

- 2007 *Thomas Lotze* (Doctoral student in the Applied Math & Scientific Computation program, University of Maryland); PhD Committee member; Chair: Prof. Galit Shmueli, D&IT.
- 2007 *Ming Zhong* (Doctoral student in the Department of Decision & Information Technology, Robert H. Smith School of Business, University of Maryland); PhD Committee member; Chair: Prof. Mike Ball, D&IT.
- 2006 *Min Min* (Doctoral student in the Statistics program, Department of Mathematics, University of Maryland); PhD Committee member; Chair: Prof. Paul Smith, Department of Mathematics.
- 2006 *Kok-Hua Loh* (Doctoral student in the Department of Decision & Information Technology, Robert H. Smith School of Business, University of Maryland); PhD Committee member; Chair: Prof. Bruce Golden, D&IT.
- 2005 *Haiming Guo* (Doctoral student in the Statistics program, Department of Mathematics, University of Maryland); PhD Committee member; Chair: Prof. Ben Kedem, Department of Mathematics.
- 2005 *Yan Li* (Doctoral student in the Joint Program of Survey Methodology, University of Maryland); PhD Committee member; Chair: Prof. Partha Lahiri, Joint Program of Survey Methodology.
- 2005 *Xia Wang* (Doctoral student in the Applied Math and Scientific Computation program, University of Maryland); PhD Committee member; Chair: Prof. Bruce Golden, D&IT.
- 2004 *Ricardo Smith-Ramirez* (Doctoral student in the Department of Agriculture and Research Economics, University of Maryland); PhD Committee member; Chair: Prof. Erik Lichtenberg, Department of Agriculture and Research Economics.

11.4 Masters Committee

2005 *Lakshmi Urimi* (Masters student in the Applied Math & Scientific Computation program, University of Maryland); Masters Committee member; Chair: Prof. Dennis Healy, Department of Mathematics.

11.5 Master's and MBA Students Supervised

2008 *Muthita Songchitruksa*, MBA 2008; Graduate advisor.

2008 *Mindy Remerowski*, MBA 2008; Graduate advisor.

2007 *Sean Perschy*, MBA 2007; Graduate advisor.

2006 *Eunjin Choi*, MBA 2006; Graduate advisor.

2005 *Nilufer Savas*, MBA 2005; Graduate advisor.

2004 *Jim Anderson*, MBA 2004; Research advisor.

2004 *Angela Wu Yang*, MBA 2005; Graduate advisor.

2004 *Bankole Osimokun*, MBA 2006; Research advisor.

2003 *Diswa Malu*, MBA 2004; Research advisor

2002 *Maria Eugenia Landesman*, MBA 2003; Graduate advisor.

11.6 Undergraduate Students Supervised

2004 *Muhammad Ali Butt*, Research Advisor (independent research project).

2003 *Mahendra Ramani*, Research Advisor (independent research project).

12 Courses Taught

I teach courses at the undergraduate, graduate (MBA & PhD), and executive education levels for the college of business (BMGT). I also teach off-load courses for the Applied Math and Scientific Computation (AMSC) program. The maximum teaching rating is 5.00.

12.1 BMGT Courses

12.1.1 Most recent 3 years

| Year | Term | Course Number, Location, Title/ Short Description | Numb. Students | Avg. Rating |
|------|--------|--|--|----------------|
| 2008 | Spring | BUSI 630 GS01 , SG, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 79 | – |
| | Spring | BMGT 808X , CP, <i>Applied Regression Analysis</i> 3 credit hours, PhD Seminar | 14 | – |
| | Spring | EMBA630 ZH09 , Online, <i>Data, Models and Decision</i> 2 credit hours, executive MBA Core Class, GSBA Zürich | 56 | NA |
| 2007 | Fall | EMBA627 EV01 , CP, <i>Data Analysis and Decision Modeling</i> 4 credit hours, executive MBA Core Class, evenings/week-ends (<i>This course was co-taught with Prof. Raghavan</i>) | 41 | † |
| | Fall | EMBA630 ZH05 , Online, <i>Data, Models and Decision</i> 2 credit hours, executive MBA Core Class, GSBA Zürich | 33 | NA |
| | Spring | BUSI 630 GS01 , SG, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 53 | 4.67 |
| | Spring | EMBA758K TU01 , Tunisia, <i>Data Mining</i> 3 credit hours, executive MBA Elective Class, MSB Tunis | 24 | 4.07 |
| | Spring | BMGT 808X , CP, <i>Applied Regression Analysis</i> 3 credit hours, PhD Seminar | 9 | 4.33 |
| | Spring | EMBA 798 ALP Rotation 3 , CP, <i>Action Learning Project</i> 0 credit hours, executive MBA advisor | 3 | NA |
| | 2006 | Fall | EMBA 798 ALP Rotation 2 , CP, <i>Action Learning Project</i> 0 credit hours, executive MBA advisor | 3 |
| | Spring | BUSI 630 GS01 , SG, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 58 | 4.62 |
| | Spring | BUSI 630 DC03 , DC, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 52 | 4.71 |
| | Spring | BMGT 808X , CP, <i>Applied Regression Analysis</i> 3 credit hours, PhD Seminar | 6 | 4.54 |

†This course was co-taught with Prof. Raghavan, DO&IT, Smith School of Business. Both instructors received teaching evaluations; however, evaluations were mixed-up during the analysis at the university/college level.

12.1.2 Prior years

| | | | | |
|------|--------|---|----|------|
| 2005 | Spring | BUSI 630 GS01 , GS, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 59 | 4.36 |
| | Spring | BUSI 630 DC01 , DC, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 60 | 3.99 |
| | Spring | BUSI 630 DC02 , DC, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 61 | 4.55 |
| 2004 | Fall | BMGT 808X , CP, <i>Applied Regression Analysis</i> 3 credit hours, PhD Seminar | 14 | 3.98 |
| | Spring | BUSI 630 DC03 , DC, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 56 | 4.23 |
| | Spring | BUSI 630 GS01 , SG <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 58 | 4.10 |
| | Spring | BUDT 733 , CP, <i>Data Analysis for Decision Makers</i> 3 credit hours, MBA Elective Class | 29 | 4.36 |
| 2002 | Fall | BMGT 630 Track 3 , CP, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 50 | 4.09 |
| | Fall | BMGT 630 Track 4 , CP, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 48 | 3.99 |
| | Spring | BMGT 630 GS01 , SG, <i>Data, Models and Decision</i> 4 credit hours, MBA Core Class | 43 | 4.24 |
| 2001 | Fall | BMGT 231 0201 , CP, <i>Statistical Models for Business</i> 3 credit hours, Undergrad Core Class | 49 | 4.37 |
| | Fall | BMGT 430 0101 , CP, <i>Lin. Stat. Models in Business</i> 3 credit hours, Undergrad Elective Class | 37 | 4.24 |

| | Average Yearly Ratings | | | | | | | |
|-------------|------------------------|------|------|------|------|------|------|------|
| Year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| Avg. Rating | 4.31 | 4.11 | – | 4.17 | 4.30 | 4.62 | 4.36 | – |
| –Undergrad | 4.31 | – | – | – | – | – | – | – |
| –MBA | – | 4.11 | – | 4.23 | 4.30 | 4.67 | 4.37 | – |
| –PhD | – | – | – | 3.98 | – | 4.54 | 4.33 | – |

12.2 AMSC Courses

In addition to my regular course load, I teach off-load courses in the *Applied Math and Scientific Computation* (AMSC) program at the University of Maryland. The goal of AMSC is to promote training in interdisciplinary research. AMSC is sponsored by the Department of Mathematics, the Center for Scientific Computation and Mathematical Modeling (CSCAMM), and the Institute for Physical Science and Technology (IPST), and is affiliated with fourteen participating departments and institutes at the University of Maryland. Within that program, I offer several *Research Interaction Teams* (RIT's). RIT's provide a research framework involving graduate and undergraduate students, postdoctoral fellows, and faculty, and they ease the transition from basic course work towards work on independent research. They place an increased emphasis on oral and written communication skills and build small communities ("teams") that naturally nourish mentoring relationships between junior and senior team members. Recent RIT's have lead to several mentoring relationships with PhD students and a variety of journal publications. Student research papers from recent RIT's can be found at <http://www.smith.umd.edu/ceme/statistics/papers.html>.

| Year | Course Name/ Short Description |
|------|---|
| 2007 | AMSC 689/BMGT 808L <i>Research Interaction Team</i> “Pricing Optimization and Data Mining” 3 credit hours, 12 students (no teaching evaluations) |
| 2005 | AMSC 689 <i>Research Interaction Team</i> “Exploring Online Auctions using Functional Data Analysis II” 3 credit hours, 4 students (no teaching evaluations) |
| 2004 | AMSC 689 <i>Research Interaction Team</i> “Exploring Online Auctions using Functional Data Analysis I” 3 credit hours, 7 students (no teaching evaluations) |

13 Courses Developed

I have newly developed from scratch three different courses: two service classes for the college of business and another off-load research class for the Applied Math and Scientific Computation program. In addition, I have also significantly enhanced and modified several other existing classes.

- **EMBA 758** *Data Mining* (executive MBA Elective). This is 5-day data mining elective course developed for the executive programs. Its main features are that it is extremely hands-on, has many in-class projects, uses real data, and solves real business problems. The students also get exposed to state-of-the-art data mining software and techniques.
- **BMGT 808L/AMSC 689** *Pricing Optimization and Data Mining* (PhD Seminar). This is a novel course at the Smith School and at the University of Maryland. It is novel in its content and also in its delivery. Its delivery is novel because it is co-taught by 3 instructors with 3 different backgrounds and expertises. The combination of 3 different instructor backgrounds allows students to see “the big picture” across 3 typically rather unconnected areas of research: economics, optimization and data mining. This course is an experiential course and can be taken as a model for cross-disciplinary teaching.
- **BMGT 808X** *Applied Regression Analysis* (PhD Seminar). This is another novel course at the Smith School and at the University of Maryland. It is novel in terms of its focus and approach. In contrast to existing statistics classes, this course has a strong application flavor. It conveys statistical concepts via a combination of traditional lecturing and the creation of a research environment. Students read & discuss scholarly articles, and they work on real-world data-driven research problems which often lead to publishable papers. Students also learn how to communicate data-driven research effectively. Students also learn state-of-the-art statistical software and modern modeling techniques.
- **AMSC 689** *Research Interaction Team* on “Exploring Online Auctions using Functional Data Analysis” (PhD and Master’s Research Class). This is a course for the Applied Math and Scientific Computation program (AMSC) developed together with Galit Shmueli. The target of this course are graduate and undergraduate students from across campus. The focus is on performing hands-on statistical research on data-driven question from electronic commerce and the delivery of scholarly papers at semester-end.

14 Service

I regularly participate in service activities to the University of Maryland and to the profession. Of particular interest to me are activities that foster research collaboration between different departments & disciplines.

14.1 Internal Service

14.1.1 Department Service

- *Chair of the D&IT Strategy Committee, 2007, 2008.*
- *Organizer of the D&IT-Marketing Luncheons, 2005, 2006, 2007, 2008.*
- *Member of the Department Name Search Committee, 2007.*
- *Member of the Faculty Search Committee in Information Systems, 2007, 2008.*
- *Member of the Faculty Search Committee in Statistics, 2005, 2006.*
- *Member of the Seminar Committee, 2005.*
- *Member of the PhD Review Committee in Information Systems, 2005, 2006.*
- *Scribe at faculty meetings, 2006, 2007*

14.1.2 College Service

- *Member of the Smith CRC Committee, 2007*
- *Faculty Champion of the Computational Marketing Fellows Program, 2006, 2007, 2008.*
- *Faculty advisor for the Executive MBA Action Learning Project, 2006, 2007.*
- *Member of the Smith Intellectual Committee, 2004.*
- *Member of the Smith Technology Integration Initiative Committee, 2003, 2004, 2005, 2006, 2007, 2008.*
- *Judge at the MBA Case Competition, 2003, 2004, 2005, 2006, 2007*
- *Judge at the Smith Technology Challenge, 2007.*
- *Judge at the MBA Part Time Innovation Competition, 2004.*
- *Marshall at the Smith Winter Graduation, 2001, 2005.*

14.1.3 University Service

- *Member of the Statistics Consortium, 2002-present.*
The Statistics Consortium brings together academic programs and resources relating to statistical theory and application at the University of Maryland.
- *Member of the Applied Math & Scientific Computation (AMSC) program, 2002-present.*
AMSC is sponsored by the Department of Mathematics, the Center for Scientific Computation and Mathematical Modeling (CSCAMM), and the Institute for Physical Science and Technology (IPST), and is affiliated with fourteen participating departments and institutes at the University of Maryland. The goal of AMSC is to promote training in interdisciplinary research.

- *Marshall* at the *University Winter Graduation*, 2001, 2005
- *Faculty advisor* of the *University of Maryland Tennis Club*, 2004-present.

14.2 External Service

14.2.1 Committees

- *Program Committee* for the *International Symposium on Business and Industrial Statistics* (ISBIS-2008), for the *14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD-2008), for the *PAKDD 2007 Workshop on Data Mining for Business*, for the *EPIA 2007 BI'07 Business Intelligence Workshop*
- *Program Chair-elect* for the ASA's Section on Statistical Computing, Joint Statistical Meetings (JSM) 2008.

14.2.2 Editorial Activities

- *Guest Editor* for a special journal issue on "Statistical Challenges and Opportunities in Electronic Commerce Research" of *Statistical Science*, May Issue, 2006; (jointly with Galit Shmueli)
- *Book Editor* for a book project on "Statistical Methods for eCommerce"; anticipated completion summer 2007; (jointly with Galit Shmueli)

14.2.3 Referee Activities

- *Ad-hoc referee* for several journals in statistics, data mining and business: Journal of the American Statistical Association, Journal of the Royal Statistical Society, Computational Statistics and Data Analysis, Journal of Computational and Graphical Statistics, Journal of Statistical Computation and Simulation, Psychometrika, Biometrics, Journal of Statistical Planning and Inference, Statistical Science, Statistics and Computing, Artificial Intelligence in Medicine, Transactions on Pattern Analysis and Machine Intelligence, Journal of Computational and Applied Mathematics, European Journal of Operational Research, Proceedings of the Ninth INFORMS Computing Society Conference, International Transactions in Operational Research, Marketing Science, Journal of Marketing, MIS Quarterly, Information Systems Research, IBM Systems Journal
- *Book-reviewer* for:
John Wiley & Sons
- *Proposal-reviewer* for:
The Social Sciences and Humanities Research Council of Canada; the Natural Sciences and Engineering Research Council of Canada.

15 Professional Associations

ASA, The American Statistical Association

IMS, The Institute of Mathematical Statistics

ENBIS, The European Network for Business and Industrial Statistics

ACM, The Association of Computing Machinery

INFORMS, The Institute for Operations Research and Management Science

16 Corporate Consulting & Advising

- Advisory Board Member:
PricewaterhouseCoopers, Center for Advanced Research (CAR), 2005-present.
My-Currency.Com, 2007-present.
- USA:
Kellogg Brown Root; PricewaterhouseCoopers; Argosy OmniMedia Inc.; D&R International Ltd; zata3; Averro, LLC; MTV/Viacom.
- Europe:
AXA Versicherung; Central Versicherung; Step Unternehmensberatung; applord GmbH