

JOHN C. LIECHTY

Associate Professor of Marketing and Statistics
Smeal College of Business
The Pennsylvania State University
October 17, 2009

CURRICULUM VITAE

EDUCATION

Cambridge University: Ph.D Mathematical Statistics (1998), Supervisor: Gareth Roberts
Brigham Young University: MS Statistics (1993), BS Physics (1991)

AWARDS AND FELLOWSHIPS

Finalist, Best Paper Financial Management Association Annual Meeting, 2009
Chair, Marketing Section of the American Statistics Association, 2007
Finalist, Paul Green Award 2005, Best Paper in the *Journal of Marketing Research*
Invited Participant, Marketing Science Institute Young Scholars Program, 2005
Finalist, John D. C. Little Award, 2004, Best Paper in *Marketing Science*
Finalist, Paul Green Award 2001, Best Paper in the *Journal of Marketing Research*
Best Methodology Paper 2001, Academy of Marketing Science Summer Meeting
Finalist, 1999 American Statistical Association Savage Award Dissertation Prize
Fellow of the Royal Statistical Society

ACADEMIC POSITIONS

- 2005 – Present Associate Professor of Marketing and Statistics, Smeal College of Business,
Pennsylvania State University
- 1999 – 2005 Assistant Professor of Marketing and Statistics, Smeal College of Business,
Pennsylvania State University
- Developed a College-Wide Math Camp for incoming Ph.D. Business Students
 - Taught Marketing Models to Ph.D. Students (evaluation: 5.8 out of 7)
 - Taught Math for Marketing Models to Ph.D. Students (evaluation: 6.0 out of 7)
 - Taught Marketing Research Course to Undergraduates (evaluation: 5.8 out of 7)
 - Taught Capstone Marketing Strategy Course to Undergraduates (evaluation: 5.5 out of 7)
 - Taught Introduction to Marketing to Undergraduates, large sections: 900+ students (evaluation: 4.5 out of 7)
 - Taught Bayesian Inference to Ph.D. Students (evaluation: 6 out of 7).
- 1996 – 1999 Visiting Assistant Professor, University of Michigan Business School
- Taught business statistics courses to undergraduate and MBA students (evaluation: 3.3-4.7 out of 5)
 - Supervised MBA teams involved in seven-week consulting projects
 - Taught Continuous-Time Asset Pricing to Ph.D. Students

OTHER ACADEMIC POSITIONS

2003 Visiting Research Fellow, SOM, University of Groningen, Netherlands

2000 – Present Courtesy Appointment: Department of Statistics, Pennsylvania State University

CONSULTING ASSIGNMENTS AND OTHER POSITIONS

2004 – 2009 Morgan Stanley: developed numerical methods for pricing credit derivative products and introduced Markov chain Monte Carlo inference techniques for calibrating credit derivative models; developed proprietary trading systems for Commodity markets.

2002 Goldman Sachs: developed and tested feasibility of different statistical arbitrage trading strategies

1998 – Present In4mation Insights: helped develop and implement methods for commercial marketing research studies

PUBLICATIONS

Articles in Refereed Journals

“Markov chain Monte Carlo methods for switching diffusion models,”* Liechty, John C. and Gareth O. Roberts, (2001), *Biometrika*, **88**, 2, pp. 229.

* Lead Article

“Choice menus for mass customization: An experimental approach for analyzing customer demand with an application to a web-based information service,”* Liechty, John, Venkataram Ramaswamy, and Steve Cohen, (2001), *Journal of Marketing Research*, **38**, pp. 183.

* Finalist for Paul Green Award

“Single-pass low-storage arbitrary quantile estimation for massive datasets,” Liechty, John C., Dennis K. J. Lin, and James P. McDermott, (2003), *Statistics and Computing*, **13**, 2, pp. 91.

“Global and local covert visual attention: Evidence from a Bayesian hidden Markov model,”* Liechty, John C., Michel Wedel, and Rik Pieters, (2003), *Psychometrika*, **68**, 4, pp. 519.

* *Psychometrika*'s Inaugural Discussion Paper

“Evidence for Covert Attention Switching From Eye-Movements: Reply to Commentaries on Liechty, ET AL., 2003,” Wedel, Michel, Rik Pieters, and John C. Liechty, (2003), *Psychometrika*, **68**, 4, pp. 557.

Articles in Refereed Journals (Continued)

“Bayesian correlation estimation,”* Liechty, John C., Merrill W. Liechty, and Peter Muller, (2004), *Biometrika*, **91**, 1, pp. 1.

* Lead Article

“A hierarchical Bayesian procedure for two-mode cluster analysis,”* DeSarbo, Wayne, Duncan K.H. Fong, John C. Liechty, and M. Kim Saxon, (2004), *Psychometrika*, **69**, 1, pp. 547.

*Lead Article

“Modeling online browsing and path analysis using clickstream data,”* Montgomery, Alan, Shibo Li, Kannan Srinivasan, and John C. Liechty, (2004), *Marketing Science*, **23**, 4, pp. 579.

* Finalist for John D.C. Little Award

“Evolutionary preferences/utility functions: A dynamic perspective,” DeSarbo, Wayne, Duncan K.H. Fong, John C. Liechty, and Jennifer Chang, (2005), *Psychometrika*, **70**, 1, pp. 179.

“Incentive aligned conjoint,”* Ding, Min, Rajdeep Grewal, and John C. Liechty, (2005), *Journal of Marketing Research*, **42**, 1, pp. 67.

* Finalist for Paul Green Award

“Dynamic models with individual level heterogeneity: Applied to evolution during Conjoint studies,” Liechty, John C., Duncan K.H. Fong, and Wayne DeSarbo, (2005), *Marketing Science*, **24**, 2, pp. 285.

“Data skeletons: Simultaneous estimation of multiple quantiles for massive streaming data sets with application to density estimation,” McDermott, James P., John C. Liechty, and Dennis K. J. Lin, (2007) *Statistics and Computing*, **17**, 4, pp. 311.

“Bayes vs. resampling: A rematch”, Harvey, Campbell R., John C. Liechty, and Merrill W. Liechty, (2008) *Journal of Investment Management*, **6**, 1, pp. 29.

“Offering online recommendations with minimal customer input through Conjoint-based decision aids,” De Bruyn, Arnaud, John C. Liechty, Elko K.R.E. Huizingh, and Gary L. Lilien (2008) *Marketing Science*, **27**, 2 pp.1.

“Hierarchical Bayesian Conjoint models incorporating measurement uncertainty,” Liechty, John, Duncan K. H. Fong, Eelko K. R. E. Huizingh, and Arnaud De Bruyn, (2008) *Marketing Letters*, **19**, 2, pp. 141.

“How goals influence the time course of eye movements across advertisements,” Wedel, Michel, Rik Pieters, and John C. Liechty, (2008) *Journal of Experimental Psychology: Applied*, **14**, 2, pp. 129-138.

Articles in Refereed Journals (Continued)

“A hierarchical Bayesian finite mixture multidimensional scaling methodology for accommodating both structural and preference heterogeneity in metric preference data”, Park, Joonwook, Wanyne S. DeSarbo, and John Liechty, (2008) *Psychometrika*, 73(3), pp. 451-472.

“Beyond conjoint analysis: Advances in preference measurement,” Netzer, Oded, Olivier Toubia, Eric T. Bradlow, Ely Dahan, Theodoros Evgeniou, Fred M. Feinberg, Eleanor M. Feit, Sam K. Hui, Joseph Johnson, John C. Liechty, James B. Orlin, and Vithala R. Rao (2008), *Marketing Letters*, 19(3-4), pp. 337-354.

“Counting chickens before the eggs hatch: Associating new product development portfolios with shareholder expectations in the pharmaceutical sector,” Grewal, Rajdeep, Anindita Chakravarty, Min Ding, John Liechty, (2008) *International Journal of Research in Marketing*, 25(4), pp. 261-272.

“The shadow prior,” Liechty, John C., Merrill Liechty and Peter Muller (2009), forthcoming at the *Journal of Graphical and Computational Statistics*.

Articles in Refereed Conference Proceedings

“Two-mode cluster analysis via hierarchical Bayes procedure,” DeSarbo, W. S., D. K. H. Fong, and J. Liechty, (2004), 27th Annual GfKl Conference, University of Cottbus, March 12 - 14, 2003. Daniel Baier, Klaus-Dieter Wernecke (eds.): *Innovations in Classification, Data Science, and Information Systems*. Springer-Verlag, Heidelberg-Berlin, 2004.

COMPLETED WORKING PAPERS

“Parallel slice sampling,” with Tibbits and Haran, under review at the *Journal of Graphical and Computational Statistics*.

“Attribute level heterogeneity,” with Ebbes, Tibbits and Grewal, being revised for consideration at *Journal of Marketing Research*.

“Market orientation, strategy type, environmental dynamism, and firm performance: Modeling higher order effects,” with Grewal and Wang, intended for the *Journal of Marketing Research*.

“Consumer time orientation and pattern of inter-purchase durations and repeat purchase quantities,” with Grewal and Atalay, intended for the *Journal of Consumer Research*.

“Portfolio Selection with Higher Moments,” with Harvey, Liechty, and Muller, intended for *Journal of Portfolio Management*.

“Persistence, Smoothing and Hedge Fund Performance Valuation,” with Huang and Rossi, intended for the *Journal of Finance*.

“Closed-Form Asymptotics for Local Volatility Models,” with Cheng, Costanzino, Mazzucato and Nistor, intended for the *Review of Financial Studies*.

Selected WORKS IN PROGRESS

“Bayesian grouped factor models and industry and debt classification,” with Lopez and Liechty, intended for *Journal of the American Statistical Association*.

“Regime switching covariance matrices with application to asset allocation”, with Zhuang and Simion, intended for the *Journal of the American Statistical Association*.

“Massively parallel Markov chain Monte Carlo,” with Lopez and Tibbits, intended for the *Journal of the Royal Statistics Society Series B*.

“The impact of demographics on non-zero individual level partworths,” with Ebbes, intended for the *Journal of Marketing Research*.

“Channel integration levels in International markets,” with Grewal and Hada, intended for the *Journal of Marketing Research*.

“Super-clusters an approach to clustering heterogeneity,” intended for *Journal of the American Statistical Association*.

PATENTS

“Single-pass low-storage arbitrary probabilistic location estimation for massive data sets,” with McDermott and Lin, U.S. No. 60/283,003.

PROFESSIONAL ACTIVITIES

Conference Presentations and Roundtables

Invited Participant, Eighteenth Annual Aspen Institute Roundtable on Information Technology, Summer 2009. "Extreme Inference: Implications of Data Intensive Advanced Correlation Techniques,"

"Modeling Consumer Heterogeneity using Super-Clusters," Summer 2006 Marketing Science Conference.

"Optimal Bayesian Sequential Experimental Design for Conjoint Analysis," Summer 2005 Marketing Science Conference.

"Optimal Sequential Questions," Summer 2003 Marketing Science Conference.

"It's What You Don't Like That's Important: Improving Conjoint Analysis by Incorporating Uncertainty," Summer 2002 Marketing Science Conference.

"Modeling Time Varying Correlation Structures," Summer 2001 Joint Statistical Meetings.

"Measuring and Modeling Uncertainty," Summer 2001 Marketing Science Conference.

"The Representation of Local and Global Scanpaths in Eye Movements through Bayesian Hidden Markov Models," (2000), Poster presentation at the First European Conference on Spatial and Computational Statistics.

"MCMC and Continuous-time, Hidden Markov Models," Invited paper at the Savage Award session of the 2000 Summer Joint Statistical Meetings.

"Constrained, Multivariate Probit Models with Heterogeneity, a Bayesian Approach," (1999), Bayesian Applications and Methods in Marketing Conference, The Ohio State University.

"MCMC and Continuous-time, Hidden Markov Models," (1997), Royal Statistical Society, Practical Bayesian Statistics 4 Conference, University of Nottingham.

Editorial Roles

Guest Area Editor *Marketing Science*

Editorial Board *Marketing Science* - May 2007 - Present

Adhoc Reviewer for *Biometrika*

Adhoc Reviewer for *Journal of Marketing Research*

Adhoc Reviewer for the *Journal of Business Studies*

Adhoc Reviewer for the *Journal of Graphical and Statistical Computing*

Adhoc Reviewer for *Marketing Science*

Adhoc Reviewer for *Management Science*

Adhoc Reviewer for *Psychometrika*

Adhoc Reviewer for the *National Science Foundation*