Peter Radchenko

Department of Data Sciences and Operations
Marshall School of Business, University of Southern California

EDUCATION

1999-2004	**Ph.D. and M.A. in Statistics**, Yale University Advisor: Professor David Pollard
1994-1999	**Degree in Mathematics and Applied Mathematics** (roughly equivalent to M.S. degree in the US) Lomonosov Moscow State University, Russia

PROFESSIONAL EXPERIENCE

2006-present	Assistant Professor (*Visiting* Assistant Professor in 2006-2008) Department of Data Sciences and Operations, Marshall School of Business, University of Southern California
2004-2006	Visiting Assistant Professor Department of Statistics, University of Chicago
Summer 2003	Instructor, Department of Statistics, Yale University
2001-2003	Teaching Fellow, Department of Statistics, Yale University
2001-2003	Research Assistant, Yale International Center for Finance

RESEARCH INTERESTS

- High-dimensional statistics
- Big data problems
- Statistical machine learning
- Business Analytics

GRANTS AND AWARDS

2012 - 2015	National Science Foundation (NSF) Grant DMS-1209057, "Dimension Reduction through Index Models," single PI
2011	Dean's Award for Research Excellence. Marshall School of Business, University of Southern California
2004	Laha Travel Award, Institute of Mathematical Statistics
2003	John F. Enders Dissertation Research Award, Yale University
2002	Leonard J. Savage Writing Prize, Yale Statistics Department
1999 - 2001	Sterling Prize Fellowship, Yale University.
1999	Medal of Excellence, Lomonosov Moscow State University

SUBMITTED PAPERS

1. Mazumder, R. and Radchenko, P. "Grouped Variable Selection with Discrete Optimization."
2. Banerjee, T., Mukherjee, G. and Radchenko, P. "Feature Screening in Large Scale Cluster Analysis."

PUBLICATIONS

3. Radchenko, P. and Mukherjee, G. "Convex Clustering via L-1 Fusion Penalization." To appear in the *Journal of the Royal Statistical Society, Series B*
4. Mazumder, R. and Radchenko, P. "The Discrete Dantzig Selector: Estimating Sparse Linear Models via Mixed Integer Linear Optimization." To appear in the *IEEE Transactions on Information Theory*
5. Radchenko, P., Qiao, X. and James, G. (2015) "Index Models for Sparsely Sampled Functional Data." *Journal of the American Statistical Association*, 110, 824-836
6. Radchenko, P. (2015) "High Dimensional Single Index Models." *Journal of Multivariate Analysis*, 139, 266-282
7. Fan, Y., James, G. and Radchenko, P. (2015) "Functional Additive Regression." *Annals of Statistics*, 43, 2296-2325
8. Radchenko, P. and James, G. (2011) "Improved Variable Selection with Forward-Lasso Adaptive Shrinkage." *Annals of Applied Statistics* 5, 427-448
9. Radchenko, P. and James, G. (2010) "Variable Selection Using Adaptive Nonlinear Interaction Structures in High Dimensions." *Journal of the American Statistical Association* 105, 1541-1553
10. James, G., Radchenko, P. and Lv, J. (2009) "DASSO: Connections between the Dantzig Selector and Lasso." *Journal of the Royal Statistical Society, Series B*, 71, 127-142
11. James, G. and Radchenko, P. (2009) "A Generalized Dantzig Selector with Shrinkage Tuning." *Biometrika,* 96, 323-337
12. Radchenko, P. (2008) "Mixed-rates Asymptotics." *Annals of Statistics,* 36, 287-309
13. Radchenko, P. and James, G. (2008) "Variable Inclusion and Shrinkage Algorithms." *Journal of the American Statistical Association*, 103, 1304-1315
14. James, G. and Radchenko, P. (2008) Invited discussion of "Sure Independence Screening for Ultrahigh Dimensional Feature Space." *Journal of the Royal Statistical Society, Series B*, 70, 895-896
15. Pollard, D. and Radchenko, P. (2006) "Nonlinear Least-Squares Estimation." *Journal of Multivariate Analysis*, 97, 548-562
16. Radchenko, P. (2005) "Reweighting the Lasso." *Proceedings of the American Statistical Association*, 1668-1672
17. Afanasyeva, L. and Radchenko, P. (1999) "On Homogeneity of Two Semi-Markov Samples." *Semi Markov Models and Applications*, Dordrecht: Kluwer, 187-199

INVITED PRESENTATIONS

2016 Naval Postgraduate School
Fox School of Business at Temple University
University of Sydney
Monash University
Lundquist College of Business, University of Oregon
International Indian Statistical Association Conference, Corvallis, OR
INFORMS International Conference, Waikoloa, HI
University of Southern California

2015 ICSA Applied Statistics Symposium, Fort Collins, CO
University of California, Los Angeles

2014 University of Chicago Booth School of Business

2013 The 20th ASA/IMS Spring Research Conference on Statistics in Industry and Technology, Los Angeles, CA
University of California, Riverside

2012 International Symposium on Business and Industrial Statistics, Bangkok, Thailand

2011 ICSA Applied Statistics Symposium, New York, NY
Marshall School of Business, University of Southern California

2010 International Conference on Statistics and Society, Beijing, China

2009 University of Illinois at Urbana-Champaign
INFORMS Annual Meeting, San Diego, CA
University of Southern California

2008 Stanford University
University of California, Los Angeles
Marshall School of Business, University of Southern California
WNAR/IMS Western Regional Meeting, Davis, CA
The Joint Statistical Meetings, Denver, CO

2007 WNAR/IMS Western Regional Meeting, Irvine, CA

2006 Carnegie Mellon University
University of California, Santa Barbara

2004 Yale University
Cornell University
The Wharton School of the University of Pennsylvania
Harvard University
University of Minnesota
University of Chicago

TEACHING EXPERIENCE

More Recent Courses:

- BUAD 310 Applied Business Statistics, core class in the undergraduate program, Marshall School of Business (2008-2013: 73 students per section; 2014-2016: about 200 students per section)
- GSBA 604 Regression and Generalized Linear Models, Ph.D. program, Marshall School of Business (2011- 2012, 2014, 2016; 7-10 students per section)
- GSBA 599 Asymptotic Statistics, Ph.D. program, Marshall (2013; 6 students)

Teaching Evaluations:

Class	Number of sections	Average Instructor Evaluation
BUAD 310	19	4.40
GSBA 604	4	4.92
GSBA 599	1	5.00

Earlier Courses:

- BUAD 310 Applied Business Statistics, mega-section format (2007)
- GSBA 603 Foundations of Statistical Inference, Ph.D. program, Marshall School of Business (2006-2007)
- Analysis of Categorical Data, intermediate level course for undergraduate and graduate students, University of Chicago (2005-2006)
- Statistical Methods and their Applications, introductory undergraduate course for statistics and economics majors, University of Chicago (2005-2006)
- Probabilistic Aspects of Combinatorial Optimization, University of Chicago (2005)
- Applications of Empirical Processes to Statistics, University of Chicago (2004)
- Introduction to Statistics, Yale University Summer Programs (2003)

STUDENTS

I am currently serving as the advisor for Trambak Banerjee, who is a 2nd year Ph.D. student in the Department of Data Sciences and Operations in the Marshall School of Business at USC.

I have served on dissertation committees for the following USC students:

2016 Courtney Paulson, Department of Data Sciences and Operations
Pallavi Basu, Department of Data Sciences and Operations

2015 Xinghao Qiao, Department of Data Sciences and Operations
Zhishan Guo, Department of Finance and Business Economics
Sungjune Pyun, Department of Finance and Business Economics

2013 Haitao Mo, Department of Finance and Business Economics

2012 Sudeep Srivastava, Department of Biological Sciences

EXTERNAL SERVICE

Panelist, National Science Foundation Grant Proposal Review Panel for the Statistics Program

Grant Proposal Reviewer, National Security Agency Mathematical Sciences Grant Program

Referee for various statistical journals, including Annals of Statistics, Journal of the Royal Statistical Society, Journal of the American Statistical Association, Biometrika, Journal of Multivariate Analysis, IEEE Transactions on Signal Processing, Journal of Machine Learning Research, Journal of Business & Economic Statistics, Journal of Computational and Graphical Statistics, Bernoulli, Biometrics, Statistica Sinica, Scandinavian Journal of Statistics, Computational Statistics and Data Analysis, Statistics and Computing, INFORMS Journal on Computing, Electronic Journal of Statistics, and Statistical Science

Program Committee Member, Sixteenth International Conference on Artificial Intelligence and Statistics

Program Committee Member, Fourteenth International Conference on Artificial Intelligence and Statistics

Invited Session Organizer and Chair, Sixth Saint-Petersburg International Workshop on Simulation, INFORMS Simulation Society

Invited Session Organizer, INFORMS Annual Meeting (2011)

Session Chair, Joint Statistical Meetings (2011)

PROFESSIONAL MEMBERSHIPS

American Statistical Association

Institute of Mathematical Statistics