

MARTIN A. LINDQUIST

1255 Amsterdam Ave
Room 1031, 10th Floor, MC 4690
New York, NY 10027

Telephone: (212) 851-2148
Fax: (212) 851-2164
Email: martin@stat.columbia.edu

Experience

- 2008 - Present Associate Professor. Department of Statistics, *Columbia University, New York, NY*
- 2002 - 2008 Assistant Professor. Department of Statistics, *Columbia University, New York, NY*
- Spring 2002 Visiting Assistant Professor. Department of Mathematics, *University of Minnesota, Minneapolis, MN*. Responsible for two undergraduate mathematics courses.
- 2001-2002 Post-Doctoral Associate. Center for Magnetic Resonance Research, *University of Minnesota, Minneapolis, MN*. Research on statistical problems relating to fMRI.
- 2000-2001 Course Instructor. Department of Statistics, *Rutgers University, New Brunswick, NJ*
Introduction to Computers for Statistics (Fall 2000 & Spring 2001)
- 2000 Visiting Scholar. Department of Statistics, *Stanford University, Palo Alto, CA*
- 1999-2000 Consultant. Center for NMR Research, *Hershey Medical Center, Hershey, PA*
Developed new algorithms and software for fMRI.
- 1998 Internship. Performance Analysis Department, *Lucent Technologies, Holmdel, NJ*
Developed software reliability model tailored to Lucent system-testing data.
- 1997 Internship. Performance Analysis, *Ericsson Mobile Communications AB, Kista, Sweden*
Automated modem testing procedures.
- 1996 Researcher. Department of Mathematics and Statistics, *University of Sydney, Australia*
Conducted research involving statistical models for the release of neurotransmitters.

Education

- 2001 PhD, Department of Statistics, *Rutgers University, New Brunswick, N.J.*
GPA: 3.97/4.0
Dissertation: Fast Functional MRI Using Two-Dimensional Prolate Spheroidal Wavefunctions. Advisors: Larry Shepp, PhD. & Cun-Hui Zhang, PhD.
- 1997 MSc., Engineering Physics, *Royal Institute of Technology (KTH); Stockholm, Sweden*
Concentration: Applied Mathematics. Thesis: Non-Homogenous Type II Counter Models for the Release of Neurotransmitters.
- 1996 Department of Mathematics and Statistics, *University of Sydney; Australia*
Master's Thesis Research
- 1990-1992 Department of History and History of Ideas, *Stockholm University; Sweden*

Papers

- Tor Wager and Martin Lindquist (2009). “Essentials of functional magnetic resonance imaging”. In submission.
- Lauren Atlas, Niall Bolger, Martin Lindquist, and Tor Wager (2009). “Multiple brain pathways mediate expectancy effects on pain”, In submission.
- Martin Lindquist (2009). “The Benefits of Rapid fMRI”. *International Journal of Imaging Systems and Technology*, to appear.
- Yu (Ryan) Yue, Ji Meng Loh and Martin Lindquist (2009). “Adaptive spatial smoothing of fMRI images”. *Statistics and Its Interface*, to appear.
- Lucy Robinson, Tor Wager, and Martin Lindquist (2009). “Change point estimation in multi-subject fMRI studies”. *NeuroImage*, to appear.
- Martin Lindquist and Ian McKeague (2009). “Logistic Regression with Brownian-like Predictors”. *Journal of the American Statistical Association*, to appear.
- William Ottowitz, Thilo Deckersbach, Cary Savage, Martin Lindquist, Darin Dougherty (2009). “Neural correlates of strategic processes underlying episodic memory in women with major depression: an ¹⁵O-PET study”. *Journal of Neuropsychiatry and Clinical Neurosciences*, to appear.
- Tor Wager, Christian Waugh, Martin Lindquist, Doug Noll, Barb Fredrickson and Steve Taylor (2009). “Brain mediators of cardiovascular responses to social threat, Part I: Reciprocal dorsal and ventral sub-regions of the medial prefrontal cortex and heart-rate reactivity”. *NeuroImage*, to appear.
- Tor Wager, Vanessa van Ast, Brent Hughes, Matthew Davidson, Martin Lindquist and Kevin Ochsner (2009). “Brain mediators of cardiovascular responses to social threat, Part II: Prefrontal subcortical pathways and relationship with anxiety”. *NeuroImage*, to appear.
- Martin Lindquist and Andrew Gelman (2009). “Correlations and Multiple Comparisons in Functional Imaging – a Statistical Perspective”. *Perspectives on Psychological Science*, 4, 310-313.
- Martin Lindquist (2008). “The Statistical Analysis of fMRI Data”. *Statistical Science*, 23(4), 439–464.
- Tor Wager, Martin Lindquist, Thomas Nichols, Hedy Kober and Jared Van Snellenberg (2008). “Evaluating the consistency and specificity of neuroimaging data using meta-analysis”. *NeuroImage*, 45, S210-S221.
- Martin Lindquist, Ji Meng Loh, Lauren Atlas, and Tor Wager (2008). “Modeling the Hemodynamic Response Function in fMRI: Efficiency, Bias and Mis-modeling”. *NeuroImage*, 45, S187-S198.
- William Ottowitz, Karen Siedlecki, Martin Lindquist, Darin Dougherty, Alan Fischman and Janet Hall (2008). “Evaluation of prefrontal–hippocampal effective connectivity following 24 hours of estrogen infusion: An FDG-PET study”. *Psychoneuroendocrinology*, 33, 1419-1425.
- Tor Wager, Matthew Davidson, Brent Hughes, Martin Lindquist and Kevin Ochsner (2008). “Prefrontal-subcortical pathways mediating successful emotion regulation”. *Neuron*, 59, 1037-1050.
- Jack Grinband, Tor Wager, Martin Lindquist, Vincent Ferrera and Joy Hirsch (2008). “Modeling duration in event-related fMRI designs”. *NeuroImage*, 43, 509-520.

- William Ottowitz, David Derro, Darin Dougherty, Martin Lindquist, Alan Fischman and Janet Hall (2008). "FDG-PET analysis of amygdalar-cortical network covariance during pre- versus post-menopausal estrogen levels: Potential relevance to resting state networks, mood, and cognition". *Neuroendocrinology Letters*, 29(4):101–000.
- Cun-Hui Zhang, Martin Lindquist, Z.H. Cho, Gary Glover and Lawrence Shepp (2008). "Fast Functional Magnetic Resonance Imaging – A New Approach Towards Neuroimaging" *Statistics and Its Interface*, 1, 13-22.
- Martin Lindquist, Cun-Hui Zhang, Gary Glover and Lawrence Shepp (2008). "Acquisition and Statistical Analysis of Rapid 3D fMRI data". *Statistica Sinica*, 18(2008), 1395-1419.
- Ji-Meng Loh, Martin Lindquist and Tor Wager (2008). "Residual Analysis for Detecting Mis-modeling in fMRI". *Statistica Sinica*, 18, 1421-1448.
- Martin Lindquist and Tor Wager (2008). "Spatial Smoothing in fMRI using Prolate Spheroidal Wave Functions". *Human Brain Mapping*, 29(11), 1276-1287.
- Tor Wager, Luis Hernandez and Martin Lindquist (2008). "Essentials of Functional Neuroimaging" In John Cacioppo and Gary Berntson (Eds), *The Handbook of Neuroscience for the Behavioral Sciences*. John Wiley and Sons.
- Martin Lindquist, Cun-Hui Zhang, Gary Glover and Lawrence Shepp (2008). "Rapid Three-Dimensional Functional Magnetic Resonance Imaging of the Negative BOLD Response". *Journal of Magnetic Resonance*, 191, 100-111.
- Tor Wager, Martin Lindquist and Lauren Kaplan (2007). "Meta-analysis of functional neuroimaging data: Current and future directions", *Social Cognitive and Affective Neuroscience* 2: 150-158.
- Martin Lindquist, Christian Waugh and Tor Wager (2007). "Modeling state-related fMRI activity using change-point theory". *NeuroImage* 35, 1125-1141
- Tor Wager, Luis Hernandez, John Jonides and Martin Lindquist (2007). "Elements of Functional Neuroimaging" In John Cacioppo, Louis Tassinary and Gary Berntson (Eds), *The Handbook of Psychophysiology*, 3rd Edition. Cambridge University Press.
- Martin Lindquist and Tor Wager (2007). "Validity and Power in Hemodynamic Response Modeling: A comparison study and a new approach". *Human Brain Mapping*, 28(8) 764-784.
- Martin Lindquist, Cun-Hui Zhang, Gary Glover, Lawrence Shepp and Qing Yang (2006). "A Generalization of the Two Dimensional Prolate Spheroidal Wave Function Method for Non-Rectilinear MRI Data Acquisition Methods". *IEEE Transactions in Image Processing* 15(9), 2792-2804.
- Martin Lindquist and Tor Wager (2005). "Application of change-point theory to modeling state-related activity in fMRI". In Pat Cohen (Ed), *Applied Data Analytic Techniques for "Turning Points" Research*. In press.
- Martin Lindquist (2003). "Optimal Data Acquisition in fMRI Using Prolate Spheroidal Wave Functions". *International Journal of Imaging Systems and Technology*, 13, 803-812.
- Essa Yacoub, Timothy Duong, Pierre-Francoise Van De Moortele, Martin Lindquist, Gregor Adriany, Seong-Gi Kim, Xiaoping Hu and Kamil Ugurbil (2003). "Spin Echo fMRI in Humans Using High Spatial Resolutions and High Magnetic Fields". *Magnetic Resonance in Medicine* 49, 655-664.
- Qing Yang, Martin Lindquist, Lawrence Shepp, Cun-Hui Zhang, Jianli Wang and Michael Smith (2002). "The Two Dimensional Prolate Spheroidal Wave Function for MRI". *Journal of Magnetic Resonance*, 158, 43-51.

Martin Lindquist (2001). "Fast Functional MRI using Two-Dimensional Prolate Spheroidal Wave Functions". *ProQuest Information and Learning Company*. Ann Arbor, MI.

Technical Reports

Martin Lindquist. "A Note on Spatial Smoothing and Minimum K-space Sampling Requirements in fMRI", Technical Report, 2004.

Larry Shepp, Cun-Hui Zhang and Martin Lindquist "Simple Ball-of-Yarn Spiral Sampling in 3-Dimensional K-Space", Technical Report, 2004.

Martin Lindquist. "Reconstruction of MR images using Non-uniformly Sampled Data and the Prolate Spheroidal Wave Function", Technical Report, 2004.

Martin Lindquist. "Non-Homogeneous Type II Counter Models for Neurotransmitter Releases". *Master's Thesis* January 1997.

Peer-Reviewed Conference Papers

Julie Spicer, Lauren Leotti, Iris Asllani, Ajna Borogovac, Martin Lindquist, Ed Smith and Tor Wager. "Individual differences in brain mechanisms of social evaluative threat". *Neuroscience*, 2009.

Martin Lindquist, Ragnheidur Haraldsdottir, Lauren Atlas and Tor Wager. "Modeling Brain Pathways using Functional Mediation Analysis". *Human Brain Mapping Annual Meeting*, 2009.

Martin Lindquist, Julie Spicer, Lauren Leotti, Iris Asllani, and Tor Wager. "Localizing areas with significant inter-individual variation: Testing Variance Components in a Multi-level GLM". *Human Brain Mapping Annual Meeting*, 2009.

Lauren Atlas, Niall Bolger, Martin Lindquist and Tor Wager. "Multiple Brain Pathways Mediate Expectancy Effects on Pain". *Human Brain Mapping Annual Meeting*, 2009.

Lucy Robinson, Tor Wager, Lauren Atlas, and Martin Lindquist. "Spatial Clustering of Response Curves". *Human Brain Mapping Annual Meeting*, 2009.

Julie Spicer, Lauren Leotti, Iris Asllani, Ajna Borogovac, Martin Lindquist and Tor Wager. "Using Perfusion fMRI to Identify Brain Mechanisms of Social Evaluative Threat", *Human Brain Mapping Annual Meeting*, 2009.

Lauren Atlas, Niall Bolger, Martin Lindquist and Tor Wager. "Multiple mediators of expectancy effects on pain perception: Interactions among higher-order brain regions and the pain matrix". *Cognitive Neuroscience Society*, 2009.

Lauren Atlas, Niall Bolger, Martin Lindquist and Tor Wager. "Neural mechanisms of expectancy-based pain modulation: Whole brain mediation analysis using fMRI". *Neuroscience*, 2008.

Lucy Robinson, Tor Wager, and Martin Lindquist. "Estimating Distributions of Onset Times and Durations from Multi-subject fMRI Studies". *Human Brain Mapping Annual Meeting*, 2008.

Tor Wager, Lauren Atlas, Martin Lindquist, Kate Hard, Matthew Davidson. "Functional Pathway Discovery using Mediation Analysis: Approach and Application to Pain". *Human Brain Mapping Annual Meeting*, 2008.

William Ottowitz, Martin Lindquist, Darin Dougherty, Alan Fischman, Janet Hall. "Use of FDG-PET to Evaluate the Limbic-Pituitary-Adrenal Axis During Estrogen Challenge: A Preliminary Analysis". *Human Brain Mapping Annual Meeting*, 2008.

Lauren Atlas, Matthew Davidson, Kate Dahl, Martin Lindquist and Tor Wager. "Tracing Pain Pathways from Stimulus to Report". *Cognitive Neuroscience Society*, 2008.

Matthew Davidson, Lauren Atlas, Martin Lindquist, Niall Bolger and Tor Wager. "The Multilevel Mediation/Moderation (M3) Framework: A Strategy for Pathway Analysis from fMRI Data". *Cognitive Neuroscience Society*, 2008.

Ji-Meng Loh, Tor Wager, and Martin Lindquist. "Detecting Model Mis-specification in fMRI using Scan Statistics". *Human Brain Mapping Annual Meeting*, 2007.

Martin Lindquist, Cun-Hui Zhang, Gary Glover and Lawrence Shepp. "Rapid 3D fMRI of the Hemodynamic Response Function". *Human Brain Mapping Annual Meeting*, 2007.

Martin Lindquist, Cun-Hui Zhang, Gary Glover and Lawrence Shepp. "Rapid 3D fMRI using an Echo-Volumar Imaging Trajectory". *Proceedings of the 15th ISMRM Annual Meeting*, Berlin, 2007.

William Ottowitz, Darin Dougherty, Martin Lindquist, Alan Fischman, Janet Hall. "Cortisol Levels Covary with Anterior Cingulate Cortex rCMR During High Dose Estrogen: A PET Study". *Journal of Neuropsychiatry and Clinical Neurosciences*, 19(2), Spring 2007.

Martin Lindquist and Tor Wager. "Spatial Smoothing in fMRI using Prolate Spheroidal Wave Functions". *Human Brain Mapping Annual Meeting*, 2006.

Martin Lindquist and Tor Wager. "A novel approach to modeling state-related fMRI activity using change-point theory". *Human Brain Mapping Annual Meeting*, 2006.

Tor Wager, Christian Waugh, Martin Lindquist, Barbara Fredrickson, Douglas Noll, Stephen Taylor. "The role of ventromedial prefrontal cortex in anxiety and emotional resilience". *Human Brain Mapping Annual Meeting*, 2006.

Jack Grinband, Tor Wager, Martin Lindquist, Vince Ferrera and Joy Hirsch. "Modeling reaction times in event-related fMRI designs". *Human Brain Mapping Annual Meeting*, 2006.

William Ottowitz, Martin Lindquist, David Derro, Darin Dougherty, Alan Fischman and Janet Hall. "Lateralization of Amygdalar-Hippocampal Connectivity During Estrogen Infusion: Relevance to the Depressive Disorders". *Human Brain Mapping Annual Meeting*, 2006.

William Ottowitz, Martin Lindquist, David Derro, Darin Dougherty, Alan Fischman and Janet Hall. "Correlation of Suprathalamic Neural Network Activity with the Hypothalamus During Estrogen Infusion in Women: A PET Study Employing Path Analysis in Evaluation of the HPO Axis". *Endo* 2006.

Martin Lindquist and Tor Wager. "Modeling the Hemodynamic Response Function using Inverse Logit Functions". *Human Brain Mapping Annual Meeting*, 2005.

Martin Lindquist, Cun-Hui Zhang, Gary Glover, Lawrence Shepp and Qing Yang. "The Generalized 2D-PSWF Method for Tracking Dynamic Signal with High Temporal Resolution". *Proceedings of the 13th ISMRM Annual Meeting*, Miami, 2005.

Martin Lindquist. "Fast Functional Magnetic Resonance Imaging". *Proceedings of SPIE* Vol. 4478, p. 163-171, December 2001.

M. Lindquist, Q. X. Yang, C. H. Zhang, R. J. Demeure, M. B. Smith, and L. Shepp, "ROI Tailored k-Space Sampling and a 2D Prolate Spheroidal Wave Function Filter: Reduction of Spectral Contamination in Spectroscopic Imaging". *Proceedings of the 8th ISMRM Annual Meeting*, Denver, p. 1842, 2000.

Grants

NIH - RC1 Grant (Co-investigator), *Neuroimaging-based biomarkers for two components of pain*, P.I. Wager, 2009-2010

NIH - R01 Grant (Co-investigator), *Learning to avoid pain: Computational mechanisms and application to methamphetamine abuse*, P.I. Wager, 2009-2014

NIH - R21 Grant (Co-Investigator), *Brain pathways in social evaluative threat*, P.I. Wager 2009-2010.

National Science Foundation (Principal Investigator), *Collaborative Research: Fast Functional MRI*, 2008-2011.

National Science Foundation (Co-Investigator), *Multilevel mediation techniques for fMRI*, P.I. Wager, 2007 - 2010

NIH/NCCAM - R01 Grant (Co-Investigator), *The neural bases of placebo effects and their relation to regulatory processes*, P.I. Wager 2006-2010

Gatsby Initiative in Brain Circuitry Pilot Project Grant (Consultant), *Neuroinformatics of expectancy in pain*, P.I. Wager, 2006-2007

NIH/NIMH - R24 Grant (Consultant), *Cognition-Emotion-HPA Interaction: Translational Network*, P.I. Liberzon, 2005 – 2008

National Science Foundation (Consultant), *Statistical Methods in Fast Functional MRI*, P.I. Shepp 2002 –2008

Invited Conference Presentations

Multilevel modeling of BOLD activity for functional studies

- Educational course in Advanced fMRI, Human Brain Mapping, San Francisco, CA. June 2009.

Analyzing fMRI data with unknown brain activation profiles

- Eastern North American Region/International Biometric Society, San Antonio Texas 2009

Modeling fMRI data with uncertain hemodynamic response or stimulus functions

- Summer School: Mathematics in Brain Imaging, Institute for Pure & Applied Mathematics, UCLA, Los Angeles, CA, July 2008

Multilevel Linear Modeling: Within-and Between-Subjects Modeling of fMRI Time Series

- Educational course in Advanced fMRI, Human Brain Mapping, Melbourne, Australia. June 2008.

Analyzing High Temporal Resolution fMRI data

- Eastern North American Region/International Biometric Society, Arlington, Virginia 2008

Negative Dip Imaging in Bold fMRI (*Jointly presented with Cun-Hui Zhang and Larry Shepp*)

- Advances in High Resolution PET & Ultra High Field MRI – Toward In Vivo Functional Molecular Imaging, Seoul, South Korea. April 2006

What Can We Learn from Statistics Departments Who Prepare Graduate Students to Teach Statistics?

- First United States Conference on Teaching Statistics, Ohio State University, Columbus, Ohio. May 2005. (*Panelist*)

Mathematical and Statistical Problems Relating to Functional MRI

- Sixth North American New Researchers Conference, University of California, Davis. July 2003.

Fast Functional Magnetic Resonance Imaging (*Jointly presented with L. Shepp*)

- International Symposium on Optical Science and Technology, San Diego, CA. July 2001.

Fast Functional Magnetic Resonance Imaging via Wavelets (*Jointly presented with L. Shepp*)

- Symposium on Inference for Stochastic Processes, Athens, GA. May 2000.

Presentations

Analyzing High Temporal Resolution fMRI data

- School of Mathematical and Statistical Sciences, Arizona State University, Tempe, AZ. December 2009.
- Neuroimaging Analysis Methods Group, Princeton University, Princeton, NJ. October 2009.
- Computational Biology Center, IBM T.J. Watson Research Center, Yorktown Heights, NY. September 2009.
- Cognitive Neuroscience Division, Columbia University Medical Center, New York, NY. November 2008.
- Department of Biostatistics, Johns Hopkins University, Baltimore, MD. September 2008.

Modeling Brain Pathways Using Functional Path Analysis

- Joint Statistical Meeting, Washington DC. August 2009.

Understanding fMRI Data: From Acquisition to Analysis

- Child Psychiatry Fellowship Seminar, Columbia University, New York, NY. September 2008.

Logistic Regression with fMRI Time Series Predictors

- Joint Statistical Meeting, Denver, WA. August 2008.

Analyzing fMRI Data with Unknown Brain Activation Profiles

- Division of Biostatistics, New York State Psychiatric Institute, New York, NY. March 2009
- Merck, Rahway, NJ. June 2008.

Efficient Modeling of fMRI Data -Basis Sets & Model Diagnostics

- Merck, Rahway, NJ. June 2008.

Estimating distributions of onset times and durations from multi-subject fMRI studies

- Human Brain Mapping, Melbourne, Australia. June 2008.

The Acquisition and Statistical Analysis of High Temporal Resolution 3D fMRI Data

- Joint Statistical Meeting, Salt lake City, Utah. August 2007.
- Neuroscience Research Institute (NRI), Gachon University of Medicine and Science, Incheon, Korea. August 2007.

Rapid 3D functional MRI

- fMRI Research Center, Columbia University, New York, NY. March 2007.
- New York Psychiatric Institute, Columbia University, New York, NY. November 2006.
- Merck, Rahway, NJ. November 2006.

Modeling State-Related fMRI Activity using Change-point Theory

- Merck, Rahway, NJ. November 2006.
- Joint Statistical Meeting, Seattle, WA. August 2006.

Rapid 3D fMRI of the Hemodynamic Response Function

- Department of Psychology, Columbia University, NY, NY. October 2006

Negative Dip Imaging in Bold fMRI

- Department of Statistics, Rutgers University, New Brunswick, NJ. May 2006.

Real-Time functional MRI

- Department of Statistics, Syracuse University, Syracuse, NY. October 2005.

Statistical Methods for Fast Functional MRI

- Department of Mathematics and Statistics, Boston University, Boston, MA. April 2004
- New York State Psychiatric Institute, Columbia University, New York, NY. February 2004

Mathematical and Statistical Problems Relating to fMRI

- Department of Statistics, University of Michigan, Ann Arbor, MI. February 2002.
- Department of Statistics, Columbia University, New York, NY. February 2002.
- Department of Statistics, University of Minnesota, Minneapolis, MN. February 2002.
- Department of Statistics, Purdue University, Lafayette, IN. January 2002.

Two Statistical Applications Yielding Basic Insights into Math (*Jointly presented with L. Shepp*)

- Department of Statistics, Stanford University, Palo Alto, CA. July 2001.

Fast Functional MRI Using Two-Dimensional Prolate Spheroidal Wavefunctions

- Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, MN. June 2001.
- Brain Program, Brown University, Providence, RI. June 2001.

A Super-Fast Negative Dip is Needed for Higher Cognition (*Jointly presented with L. Shepp*)

- Department of Radiology, Stanford University, Palo Alto, CA. August 2000.

From Emission Tomography to fMRI (*Jointly presented with L. Shepp*)

- Department of Statistics, Stanford University, Palo Alto, CA. July 2000.

Non-Homogenous Type II Counter Models for the Release of Neurotransmitters

- Department of Statistics, Royal Institute of Technology, Stockholm, Sweden. February 1997.

Workshops

Workshop on Estimating Effects and Correlations in Neuroimaging Data

- Columbia University. July 15, 2009
- Co-Organizer of workshop with 4 speakers and 150 registered attendees.

Workshop on Time Series Analysis in Neuroscience

- Columbia University. April 14, 2009
- Co-Organizer of workshop with 7 speakers and 60 registered attendees.

Workshop on Functional Magnetic Resonance Imaging

- New York State Psychiatric Institute. June 3-5, 2008
- Principal Lecturer, with T. Wager

Advanced Statistical Methods for Functional MRI

- Merck, Rahway, NJ. November 9-10, 2005
- Organizer and sole lecturer for 2 day course (10 hours)

Reconnect Satellite Conference 2005: *Reconnecting Teaching Faculty to the Mathematical Sciences Enterprise* - The Mathematics of Medical Imaging
– Spelman College, Atlanta, GA. July 17-23, 2005
– Principal Lecturer, with L. Shepp

Statistical Methods for Functional MRI
– Merck, Rahway, NJ. April 18-20, 2005
– Organizer and sole lecturer for 3 day course (15 hours)

Professional Service

Editorial Board:

- NeuroImage
- International Journal of Imaging Systems and Technology
- Frontiers in Human Neuroscience (Review Editor)

Conference Program Committee:

- 2nd International Conference on Image and Signal Processing (CISP'09), Tianjin, China. October 2009.

Conference Chair:

- Modeling & Analysis: Neuroinformatics; Human Brain Mapping, San Francisco, CA. June 2009.

Referee:

- Journal of the American Statistical Association
- International Journal of Imaging Systems and Technology
- IEEE Transactions on Medical Imaging
- Computational Statistics and Data Analysis
- NeuroImage
- Human Brain Mapping
- Statistica Sinica
- Statistical Science
- Brain Imaging and Behavior
- Social Cognitive and Affective Neuroscience
- Journal of Neuroscience Methods
- IEEE Journal of Selected Topics in Signal Processing
- Journal of Magnetic Resonance Imaging
- Biological Psychology
- Prentice Hall
- National Science Foundation – Division of Mathematical Sciences

Departmental Service

At Columbia University:

- Undergraduate curriculum committee (2009-2010)
- PhD Core Committee (Applied Statistics) (2009-2010)
- Co-organizer of 2009 Special Focus Series: “Statistical methods in Neuroscience”
- Committee on PhD admissions (2009)
- Committee in charge of “Applied Statistics” qualifying exam.
- Department Liaison to Summer Session (2008-2009)
- Curriculum committee (2008)

- Junior search committee (2007 & 2008 & 2009)
- A variety of undergraduate curriculum committees – joint major, project webpage, textbook and course design (2004-2008).
- Designed courses "Introduction to Applied Statistics" (2005-2006) and "Statistical Methods in functional MRI" (2004-2005)
- Organized departmental seminar (2003-2004)
- Departmental representative to QMSS program (2002-2004)
- Committee on PhD admissions (2003-2007)
- PhD Mentoring: Lucy Robinson (2006-2009), Ragnheidur Haraldsdottir (2007-)

At Rutgers University:

- Graduate student representative (2000-2001)

Academic Awards

2001	Conference Travel Award <i>Rutgers University; The Graduate School New Brunswick</i>
2000	Travel Stipend for Visiting Scholar position <i>Rutgers University; The Graduate School New Brunswick</i>
1997-1999	Excellence Fellowship for Graduate Studies in Statistics <i>Rutgers University; The Graduate School New Brunswick</i>
1996	Travel Stipend for Study Abroad <i>Royal Institute of Technology (KTH); Stockholm, Sweden</i>

Teaching

At Columbia University:

- W1111 – Introduction to Statistics
- W2110 – Introduction to Applied Statistics (Course developer)
- W4105 – Probability
- W4437 – Time Series Analysis
- G6210D - Statistical Consulting
- G6600 - Teaching Statistics at the University Level
- G8335 - Statistical Methods for fMRI (Course developer)

At University of Minnesota:

- Math 3118 – Topics in Elementary Mathematics II

At Rutgers University:

- Statistics 390 - Introductory Computing for Statistics

Oral and Dissertation Committees

- Lucy Robinson (Principal advisor, Currently at Johns Hopkins University)
- Ragnheidur Haraldsdottir (Principal advisor)
- Hui Wang
- Daqing Zhang
- Philip Reiss (Biostatistics)
- Michael Shnaidman (Committee chair)
- Yu Liang
- Yu Zheng
- Yixin Fang
- Olivier Nimeskern (Committee chair)
- Yi-Hsuan Lee (Committee chair)
- Spiro Pantazatos (Physiology and Cellular Biophysics)
- Lauren Leotti (Psychology)
- Wei Xiong (Biostatistics)

Professional Memberships

- American Statistical Association
- International Society for Magnetic Resonance in Medicine
- Organization for Human Brain Mapping

Additional Information

- Swedish citizenship
- Permanent U.S. Resident.
- Languages: Native Swedish and English. Basic French