

## Workshop: Time Series Analysis in Neuroscience

April 14th, 2009, 12-5pm  
Columbia University

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The goal of this workshop is to highlight the role that time series analysis plays in neuroscience research. Talks will deal specifically with time series problems that arise in fMRI, EEG and neuro-spiking research.

The workshop takes place on April 14, between 12-5pm in Alfred Lerner Hall Room 555 on the Morningside Campus of Columbia University.

Admission is free. However we ask that you register in advance. Please register by noon on Friday, April 10 at <http://www.stat.columbia.edu/~martin/TimeSeriesWorkshop.html>.

### **SCHEDULE:**

- 12:00 - 12:15 Coffee and sandwiches
- 12:15 - 12:20 Welcome
- 12:20 - 1:10 **Quadratic System Identification: A Statistical Framework for the Paired-Pulse Paradigm.** Sriyesh G. Arunajadai, Department of Biostatistics, Columbia University
- 1:10 - 1:25 **Efficient, adaptive estimation of two-dimensional firing rate surfaces via Gaussian process methods.** Kamiar Rahnama Rad, Department of Statistics, Columbia University
- 1:25 - 2:15 **Exact and approximate point process filters applied to spike train decoding.** Uri Eden, Department of Mathematics and Statistics, Boston University
- 2:15 - 2:35 Coffee break
- 2:35 - 3:25 **Logistic Regression with Brownian-like Predictors.** Ian McKeague, Department of Biostatistics, Columbia University
- 3:25 - 3:40 **Change point estimation in multi-subject fMRI studies.** Lucy Robinson, Department of Statistics, Columbia University
- 3:40 - 4:30 **Geometric Optimization, Sampled Granger Causality and Point Processes with Coincidences; with Applications.** Victor Solo, School of Electrical Engineering, University of New South Wales, Sydney, AUSTRALIA
- 4:30 - 4:55 **Grant opportunities at NSF with a view towards neuroscience.** David Stoffer, Department of Statistics, University of Pittsburgh and Statistics Program, Division of Mathematical Sciences, National Science Foundation
- 4:55 - 5:00 Closing remarks

### **ORGANIZERS**

Richard Davis, Martin Lindquist and Liam Paninski, Department of Statistics, Columbia University

This event is sponsored by the Department of Statistics at Columbia University. This workshop is part of the Department of Statistics special focus series on [Statistical Methods in Neuroscience](#).