University of California, Irvine Statistics Seminar

On the Bayesian Modeling of Neuronal Spike Trains

Sam Behseta
Professor, Department of Mathematics
Director of Center for Computational and Applied
Mathematics (CCAM)
California State University, Fullerton

Thursday, February 2, 2017 4 p.m., 6011 Bren Hall (Bldg. #314 on campus map)

In this talk, I will give an overview of some of the work that I have been involved with in the past few years, including a series of collaborative efforts with colleagues at UCI's Statistics Department. In particular, I will talk about Bayesian Functional Data Analysis for the comparative analysis of neuronal spiking activities recorded under multiple experimental conditions and Bayesian nonparametric techniques utilizing Dirichlet Processes for the same objective. Additionally, I will explain the advantages of applying a Bayesian framework through Gaussian Process models for decoding information associated with multiple spike trains obtained from simultaneously recorded neurons. Finally, I will offer a few thoughts about some exciting opportunities for future research.

For directions/parking information, please visit https://uci.edu/visit/maps.php and http://www.ics.uci.edu/about/visit/index.php