

Department of Applied and Computational Mathematics and Statistics Colloquium

Kassandra Fronczyk


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will give a lecture entitled:

A Bayesian latent infinite factor approach for discrete choice models

Abstract

Discrete choice models are concerned with modeling the interactions between subjects and the driving forces behind the choices they make. The ultimate goal is to obtain interpretable descriptions of both subjects and choices, understand the interactions between the two, and to predict future interactions that have not yet been observed. In this work, we propose a novel framework based on Bayesian latent factor analysis. Our model employs a nonparametric prior to enable a data-driven estimate for the number of underlying factors. We exploit Markov chain Monte Carlo techniques to implement the model and obtain tractable inference for our objectives. We demonstrate the effectiveness of our method on both simulated data as well as real-world datasets.



**Wednesday, February 12, 2014
4:30 p.m. to 5:30 p.m.
127 Hayes-Healy Center**

Colloquium Tea

4:00 p.m. to 4:30 p.m. 154 Hurley Hall