The University of Chicago
Department of Statistics

Seminar Series

MING GU

Department of Mathematics
University of California, Berkeley

Reduced Rank Regression via Convex Optimization

MONDAY, April 4, 2011, at 4:00 PM

133 Eckhart Hall, 5734 S. University Avenue
Refreshments following the seminar in Eckhart 110.

ABSTRACT

Reduced rank regression is a well-known technique for dimension reduction and coefficient estimation for multivariate linear regression. In this talk, we discuss the formulation of various reduced rank regression models, using convex optimization techniques; we also develop a general solution technique, based on spectral projection, to efficiently solve such problems. We present numerical results to demonstrate that our methods are vastly more efficient than existing methods for similar problems. In addition, we develop a realistic and profitable arithmetic trading system on the SP 500 index, with real data, using our reduced rank regression models.