The Fox School of Business

www.fox.temple.edu

Department of Statistics

Temple University

ANNOUNCES A
COLLOQUIUM

Dr. Tony Cai

University Pennsylvania
The Wharton School
Department of Statistics

will speak on

Optimal Estimation of Large Covariance Matrices

Time: 3:00 – 4:00 PM
Date: Friday, October 1, 2010
Place: Alter Hall 746

Abstract

In this talk I will begin with a discussion of several interesting problems in high dimensional statistical inference, which is one of the most active research areas in statistics with a wide range of applications, including genomics, fMRI analysis, risk management, and web search problems. These and other related problems have also attracted much recent interest in other fields including applied mathematics and electrical engineering. I will then focus on optimal estimation of a large covariance matrix and its inverse under various settings. Both minimax lower bounds and rate-optimal procedures are discussed. The analysis of the matrix estimation problems reveals new features that are quite different from those in the more conventional function/sequence estimation problems.

Guest Parking Available in the **Liacouras Garage**
(Located on **15th Street between Montgomery** and **Cecil B. Moore Avenues**)