



The University of Chicago  
Department of Statistics

FIRST YEAR PHD PRESENTATION

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## **Minimax Estimation of Large Covariance Matrices**

**TUESDAY, May 22, 2012, at 5:30 PM**  
110 Eckhart Hall, 5734 S. University Avenue

### **ABSTRACT**

Driven by a wide range of applications in high-dimensional data analysis, there has been significant recent interest in the estimation of large covariance matrices. In this talk, optimal estimation of a covariance matrix over several commonly used parameter spaces is considered under the matrix operator norm. Both minimax lower and upper bounds are derived.

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