



The University of Chicago  
Department of Statistics

FIRST YEAR PHD PRESENTATION

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**Multi-Split  $L_1$ -SVM for Detecting Gene-Gene  
Interaction**

**TUESDAY, May 22, 2012, at 6:00 PM**

110 Eckhart Hall, 5734 S. University Avenue

**ABSTRACT**

Interactions among genetic variants likely affect risk for human complex diseases. In this study, we investigate a multi-split-based method using Support Vector Machine with  $L_1$  penalty for the identification of disease-associated interactions. The approach is demonstrated using simulation studies as well as the analysis of a real dataset.

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