NYU Stern School of Business Department of Information, Operations & Management Sciences STATISTICS RESEARCH SEMINAR

TOPIC: Inverse Regression Analysis of Really Big Tables

SPEAKER: Matt Taddy (Chicago Booth)

DATE: Friday, October 18th, 2013 **TIME:** 11:30 AM - 12:30 PM

PLACE: KMC 5-75

ABSTRACT

When regressing onto a high-dimensional set of explanatory variables, it is often possible to summarize the data in a multi-way contingency table. For example, both text and web-browser data can be treated in this way. We can then look at how cell-counts for explanatory variables change with the response, and use the relationship to build scores for predicting future response. This talk will discuss efficiency of such multinomial inverse regression procedures, as well as strategies for fast model estimation on a massive scale. Techniques will be illustrated through a variety of examples.