MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

JAMES FRANCIS HANNAN LECTURE SERIES

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Hierarchical High-Dimensional Statistical Inference

Tuesday, November 15, 2016
10:20 a.m. - 11:10 am
Refreshments 10:00 am
C405 Wells Hall

Abstract

In presence of highly correlated variables, which is rather common in high-dimensional data, it seems indispensable to go beyond an approach of inferring individual regression coefficients from a generalized linear model. Hierarchical inference is a powerful framework enabling to make significance statements for groups of correlated or sometimes even individual variables. Besides methodology and theory, we obtain interesting results for genomewide association studies: unlike correlation based marginal approaches, they have a straightforward "causal-type" interpretation when making additional assumptions.

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