MICHIGAN STATE UNIVERSITY

Department of Statistics and Probability

COLLOQUIUM

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Estimation of Graphical Models with Biomedical Applications

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Abstract

Graphical models are commonly used to represent conditional dependence among random variables. Many methods have been proposed to estimate the underlying directed/undirected graphs from data based different assumptions. However, those assumptions are invalid for a lot of biomedical data with dependent structure and the existence of measurement error, and thus new methodologies are indeed needed. In this talk, we discuss several issues related to graphical models and their applications including estimation of multiple graphs from dependent data, estimations of graph from noisy data, and estimation of directed graphs including Directed Acyclic Graphs (DAGs) and Vector Auto regression.

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