

MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

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Parametric and Nonparametric Models for Higher-order Interactions

Tuesday, February 20, 2018

10:20 AM - 11:10 AM

Refreshments 10:00 AM

C405 Wells Hall

Abstract

In this talk, I will discuss about parametric and nonparametric models for higher-order interactions with a focus on the statistical and computational aspects.

In fields like social, political and biological sciences, there is a clear need for analyzing higher-order interactions as opposed to pairwise interactions, which has been the main focus of statistical network analysis recently.

Generalized Block Models and Hypergraphons are powerful tools for modeling higher-order interactions.

The talk will introduce the models, present theoretical results highlighting the challenges and differences that arise when analyzing higher-order interactions compared to pairwise interactions, and discuss applications and numerical results.

*To request an interpreter or other accommodations for people with disabilities, please call the
Department of Statistics and Probability at 517-355-9589.*