

COLLOQUIUM

Department of Statistics and Probability
Michigan State University

Subhadeep Mukhopadhyay

Department of Statistics, Texas A&M University

LP-comoments: Theory, Methodology and Interpretation

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A405 Wells Hall

10:20 a.m. - 11:10 a.m.

Refreshments: 10:00 a.m.

Abstract

- Q1. What are the most crucial risk factors for Hepatitis disease ?
- Q2. How Netflix/Amazon/Pandora/Google recommend movies/books/musics/add to users?
- Q3. How bacteria/ microbial community communicate with your body and different diets ?
- Q4. How to check a given stationary time series, which is possibly nonlinear, is white noise ?
- Q5. How different regions of brain communicate with each other ?
- Q6. A Formula that killed could save Wall Street...
- ⋮

The fundamental concept that allows us to address these diverse problem in a unified way is “learning correlation from data”. We will demonstrate the power of LP-comoment based correlation measure - **CINFOR**, **INFOR**mation theoretic number to develop **C**riteria for detecting highly dependent pairs of random variables, which is adaptive to application domains and data sets/experimental platforms.

This is a joint work with Prof. Emanuel Parzen.

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