Department of Statistics & Data Science
Colloquium Series
Fall 2019

Speaker: Dr. Weibiao Wu
Title: Testing for Trends in High-dimensional Time Series
Date: Friday, November 22nd, 2019
Time: 11:00AM – 12:00PM
Location: Technology Commons I, Room 102C

Abstract:
We consider statistical inference for trends of high-dimensional time series. Based on a modified L2-distance between parametric and nonparametric trend estimators, we propose a de-diagonalized quadratic form test statistic for testing patterns on trends, such as linear, quadratic or parallel forms. We develop an asymptotic theory for the test statistic. A Gaussian multiplier testing procedure is proposed and it has an improved finite sample performance. Our testing procedure is applied to a spatial temporal temperature data gathered from various locations across America. A simulation study is also presented to illustrate the performance of our testing method. The work is joint with Likai Chen.

Notice to students: Please sign in at the event!