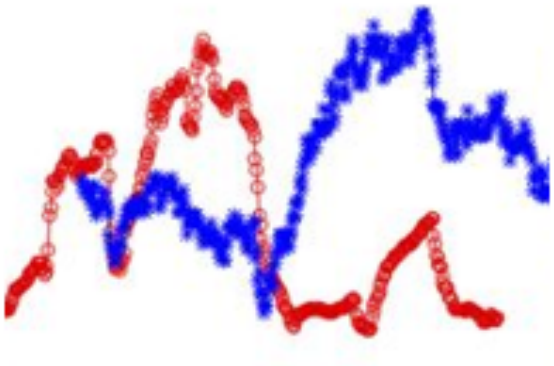

Statistics Seminar

A new nonparametric test for checking the equality of the correlation structures of two time series

Friday, October 26, 2018
12:00 – 1:00 PM
DERR 122

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Abstract: In this talk, we consider an order selection test to check the equality of two independent stationary time series in their correlation structures. The asymptotic distribution of the order selection test statistic under the null hypothesis is obtained. For many existing tests, consistency against general alternative hypotheses has not been established. On the other hand, we show that the proposed test is consistent not only under any fixed alternative hypothesis but also under a sequence of local alternative hypotheses. A simulation study is conducted to examine the finite sample performance of the test in comparison to some existing methods. We also apply the proposed test to an analysis of a biomedical data set.

Dr. Suojin Wang is a Professor of Statistics and Epidemiology & Biostatistics and the Associate Dean for Assessment in College of Science at Texas A&M University. He received his Ph.D. from the University of Texas at Austin. His research interests include semi- and non-parametric statistical methodology, missing and mis-measured data analyses, asymptotic theory, sample surveys, and applied statistics. He has over 160 peer-reviewed research publications. He was the Editor-in-Chief of Journal of Nonparametric Statistics during 2007-2012. He is an elected Fellow of the American Statistical Association, an elected Fellow of the Institute of Mathematical Statistics and an elected member of the International Statistical Institute. He received four major teaching awards from Texas A&M University, including the most prestigious University-level Distinguished Achievement Award in Teaching.