Department of Systems Engineering and Engineering Management

Seminar Series

Data Science; Statistically and Numerically Efficient Independence Test

Prof. Xiaoming Huo
Professor
H. Milton Stewart School of Industrial & Systems Engineering
Georgia Institute of Technology, USA

Date	11 December 2017 (Monday)
Time	4:30pm - 5:30pm
Venue	G5-317, 5/F, Yeung Kin Man Academic Building

Abstract

The big data is a well-known phenomenon in the modern world. The emerging discipline of data science has inspired a lot of discussion and debate in the scientific research communities, including the mathematical and statistical science community. Contributing to this discussion, in the first part of this talk, I will present a discussion as well as a selective survey on the landscape of data science, as it is forming its foundation. I will describe some of my recent activities towards building a foundation of data science. On the second part of this talk, I will present one of my specific research, which addresses a particular issue in the enormous spectrum of data science. More specifically, we study how to generate a statistical inference procedure that is both computational efficient and having theoretical guarantee on its statistical performance. We present numerical comparisons with contemporary approaches to demonstrate its advantages.

About the Speaker

Xiaoming Huo is a professor at the Stewart School of Industrial & Systems Engineering at Georgia Tech. Dr. Huo received the B.S. degree in mathematics from the University of Science and Technology, China, in 1993, and the M.S. degree in electrical

engineering and the Ph.D. degree in statistics from Stanford University, Stanford, CA, in 1997 and 1999, respectively. Dr. Huo's research interests include statistical theory, statistical computing, and issues related to data analytics. He has made numerous contributions on topics such as sparse representation, wavelets, and statistical problems in detectability. His papers appeared in top journals, and some of them are highly cited. He is a senior member of IEEE since May 2004. He won the Georgia Tech Sigma Xi Young Faculty Award in 2005. His work has led to an interview by Emerging Research Fronts in June 2006 in the field of Mathematics - every two months, one paper is selected. Huo is a fellow of ASA and an AE for Technometrics. He represented China in the 30th International Mathematical Olympiad (IMO), which was held in Braunschweig, Germany, in 1989, and received a golden prize. From August 2013 to August 2015, he served the US National Science Foundation as a Program Director in the Division of Mathematical Sciences (DMS). Dr. Huo has presented keynote talks in major conferences and numerous invited colloquia and seminar presentations in the US, Asia, and Europe.

Enquiry: 3442 8408

All are Welcome!

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