

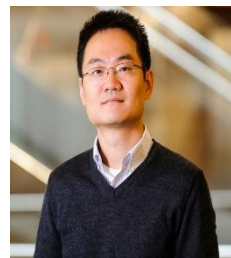
**The Hong Kong Polytechnic University
Department of Applied Mathematics**

Colloquium

Data-Driven Decision Making: Do We Know What We Know?

By

**Prof. Ming YUAN
Columbia University**



Abstract

From portfolio optimization to inventory management, applications of data-driven decision making abound. Do I have enough data? What if my model is wrong? Is optimized optimal? How do we make reasonably good decisions with a limited amount of data, uncertainties in modeling and finite computational resources are often the central theme of these tasks. Through a couple of prototypical examples, I shall demonstrate that, to better understand the challenges and develop strategies to counter them, it is imperative that we will look at these problems from both statistical and optimization viewpoints.

Biography

Ming Yuan is a Professor of Statistics and an Associate Director of the Data Science Institute at Columbia University. He was previously a Senior Investigator in Virology at Morgridge Institute for Research and a Professor of Statistics at University of Wisconsin at Madison, and prior to that Coca-Cola Junior Professor of Industrial and Systems Engineering at Georgia Institute of Technology. His research and teaching interests lie broadly in statistics and its interface with other quantitative and computational fields such as optimization, machine learning, computational biology, and financial engineering. He has served as the program secretary of the Institute for Mathematical Statistics (IMS), and a member of the advisory board for the Quality, Statistics and Reliability section of the Institute for Operations Research and the Management Sciences (INFORMS). He was also a co-Editor of The Annals of Statistics and has served on numerous editorial boards. He was named a Senior Fellow of the Institute for Theoretical Studies at ETH Zurich (2019), a Medallion Lecturer of IMS (2018), and a recipient of the Leo Breiman Junior Researcher Award (2017; American Statistical Association), the Guy Medal in Bronze (2014; Royal Statistical Society), and CAREER Award (2009; US National Science Foundation).

Date: 1 September 2023 (Friday)

Time: 16:00-17:00 (Hong Kong Standard Time GMT +8)

Venue: Online Talk via Zoom (Meeting ID: 930 7275 1076; Passcode: 0901)

Speaker: Prof. Ming Yuan, Columbia University

Host: Prof. Xingqiu Zhao, The Hong Kong Polytechnic University

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