

## Joint Seminar by AIFT and Columbia University

### Asset Pricing and Portfolio Choice in A Large Investment Universe



by Prof. Ming YUAN

Professor  
Department of Statistics  
Columbia University

#### ■ Abstract

Big data is challenging conventional thinking in finance and poised to reshape the financial industry as well as research. A distinctive characteristic that often sets these massive data apart is that information contained in them is abundant yet at the same time elusive. This paradox can be exemplified by the sometimes incompatible observations and theories for asset pricing and portfolio selection: does the CAPM capture the cross-section variation among asset prices, or do we need a "factor zoo"? Are mean-variance portfolios truly optimal, or is naive diversification the most efficient? I will offer a statistical perspective to these debates and argue that it is plausible that they are simply how "elusive signals" in high dimensions manifest themselves and therefore consequences of the ever-increasing investment universe.

#### ■ 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 Research at ETH Zurich (2019), a Medallion Lecturer of IMS (2018), and a recipient of the Leo Breiman Junior Researcher Award (2017; the Statistical Learning and Data Mining section of the American Statistical Association), the Guy Medal in Bronze (2014; Royal Statistical Society), and CAREER Award (2009; US National Science Foundation).

#### ■ Date and Time

**Mar 24, 2022 (Thu) at 9-10pm (US Eastern Time)**

### There's nothing new under the sun: Knowledge discovery in cryptocurrency transactions



by Dr. Xiaofan LIU

Assistant Professor  
Department of Media and Communication  
City University of Hong Kong

#### ■ Abstract

Cryptocurrencies, a class of anonymous payment medium, have reached a total market capitalization over 2 trillion US dollars. Transactions of these cryptocurrencies are recorded publicly and transparently on blockchains, faithfully keeping track of all user activities in the cryptocurrency economy. This talk will review the current research on knowledge discovery from the transaction records and introduce several studies done by the presenter.

#### ■ Biography

Dr. Liu Xiaofan received his Bachelor of Science and Ph.D. degree from the Hong Kong Polytechnic University in 2008 and 2012, respectively. He is currently an assistant professor in the Department of Media and Communication, City University of Hong Kong. His research areas include human behaviors in the darknet and the cryptocurrency world.

#### ■ Date and Time

**Mar 25, 2022 (Fri) at 9-10am (Hong Kong Time)**

Venue: AIFT meeting room  
Units 1101-1102 & 1121-1123,19W  
Hong Kong Science Park

URL: <https://cityu.zoom.us/j/3560816699>  
Meeting ID: 356 081 6699  
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