### THE UNIVERSITY



### OF HONG KONG

# Institute of Mathematical Research Department of Mathematics

## **Computational Science Seminar**

### Big Data and Artificial Intelligence Applications Around Us

### Dr. Wai-Mo Suen

CEO, ClusterTech Ltd.
Professor, Washington University
Honorary Professor, Chinese University of Hong Kong
and

### Dr. Siu-Wai Yiu

Head, Advanced Computational Technology Team, ClusterTech Ltd.

#### **Abstract**

In the first part of this talk we will discuss applications of Big Data and Artificial Intelligence in the local market, from the standpoint of a practitioner. Areas of application range from financial industry (e.g., predicting markets) to our environment (e.g., predicting and analyzing pollution). We will discuss the driving force behind the coming of age of these technologies, and the implications.

In the second part of this talk we will highlight the Internship Program at ClusterTech for those who might be interested. We will provide selected problems as examples to illustrate how one can apply mathematical skills to solve real world problems.

Biography: Dr. Wai-Mo Suen is a Professor of Theoretical Physics of the Washington University, and an Honorary Professor of the Chinese University to Hong Kong. His research directions are the theory of relativity, gravitational waves, black holes and neutron stars. He is also the founder and CEO of ClusterTech Ltd., a company providing services and products to solve problems in massive data processing, large-scale computing, in-depth analysis, artificial intelligence, and uninterrupted service. The business areas of ClustertTech include financial engineering (investment analysis, risk management, derivatives pricing, etc.), business intelligence (sales forecasting, customer management, inventory management, etc.), environmental science (weather forecast, heavy rain and turbulence forecasting, analysis and prediction of pollution, etc.), smart city (information gathering, information analysis, optimisation and management, etc.), and internet applications (massive image processing, video storage and delivery).

Dr. Siu-Wai Yiu is a Senior Chief Scientist of ClusterTech Ltd. He obtained a Ph.D. in Mathematics from the University of California, Berkeley, and a Juris Doctor from the Chinese University of Hong Kong. He has extensive practical experience in the information security, cryptography, and data analytics areas. He is currently the team leader of ClusterTech Ltd's Advanced Computational Technology Team ("ACT") which focuses in applying advanced computing technologies such as big data analytics, machine learning, and artificial intelligence to solve real world commercial problems to create values for customers.

Date: March 14, 2018 (Wednesday)

Time: 3:30 – 4:30pm

Venue: Room 210, Run Run Shaw Bldg., HKU