



**THE CHINESE UNIVERSITY OF HONG KONG**  
Department of Information Engineering  
*Seminar*

**Data-driven Scientific Discovery and Ubiquitous Computing:  
Systems, Algorithms, Applications**  
by  
**Prof. Qin Lv**  
University of Colorado Boulder, USA

**Date : 18 October 2023 (Wednesday)**

**Time : 2:00pm – 3:00pm**

**Venue : Rm 222, Ho Sin Hang Engineering Building, CUHK**

Abstract

The explosive growth of our digital universe has brought about fundamental changes to scientific research and our daily activities. Effective and efficient data analytics has become increasingly important for managing and exploring massive amounts of data in a wide range of application domains. Many of these real-world problems call for a full-stack data analytics approach that jointly considers the systems, algorithms, and applications aspects that span the complete data analytics pipeline. In this talk, I will give an overview of our research work on effective and efficient data-driven scientific discovery and ubiquitous computing, including mobile/wearable/IoT sensing at the systems layer, multi-modal data fusion and anomaly detection at the algorithms layer, and some sample applications. I will highlight some of the technical challenges and our key innovations, and discuss directions for future research.

Biography

Dr. Qin “Christine” Lv is a Professor and Co-Associate Chair for Graduate Education in the Department of Computer Science, University of Colorado Boulder, USA. She received her PhD degree in computer science from Princeton University. Lv's research focuses on full-stack data analytics. Topics of interest include mobile/wearable/IoT sensing, multi-modal data fusion, anomaly detection, and user behaviour analysis. Her research interacts with many scientific domains including Earth sciences, electrified transportation, renewable and sustainable energy, as well as the information needs in people's daily life. Lv has received many awards, including the IMWUT 2021 Distinguished Paper Award, SenSys 2018 Best Paper Runner-up Award, 2017 Google Faculty Research Award, and VLDB 2017 Ten Year Best Paper Award.

**\*\* ALL ARE WELCOME \*\***