THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON STATISTICS AND DATA SCIENCE

Adaptive and robust multi-task learning

By

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Abstract

In this talk, we study the multi-task learning problem that aims to simultaneously analyze multiple datasets collected from different sources and learn one model for each of them. We propose a family of adaptive methods that automatically utilize possible similarities among those tasks while carefully handling their differences. We derive optimal statistical guarantees for the methods and prove their robustness against outlier tasks. Numerical experiments on synthetic and real datasets demonstrate the efficacy of our new methods.

Biography

Kaizheng Wang is an assistant professor of industrial engineering and operations research at Columbia University. He obtained his PhD degree from Princeton University in 2020. His research interests lie at the intersection of statistics, machine learning and optimization.

Date : 13 April 2022 (Wednesday)
Time : 10:30am – 11:30am
Zoom Meeting : https://hkust.zoom.us/j/5616960008 **(Passcode: hkust)**

All are Welcome!