The Hong Kong University of Science and Technology

Seminar on Business Data Science
Department of ISOM

Transfer Learning: Optimality and Adaptive Algorithms

by
Prof. Tony CAI
University of Pennsylvania
Date: 17 May, 2024 (Friday)
Time: 3:00pm – 4:00pm
Venue: Case Room 1003 (LSK Business Building)

Abstract

Human learners have the natural ability to use knowledge gained in one setting for learning in a different but related setting. This ability to transfer knowledge from one task to another is essential for effective learning. However, in statistical learning, most procedures are designed to solve one single task, or to learn one single distribution, based on observations from the same setting. In this talk, we discuss statistical transfer learning in various settings under the posterior drift model, which is a general framework and arises in many practical problems. The results show that significant benefit of incorporating data from the source distributions for learning under the target distribution.

Bio

Prof. Tony Cai received his PhD from Cornell University in 1996. He joined the University of Pennsylvania in 2006 and is currently the Daniel H. Silberberg Professor in Applied Mathematics and Statistics. He was also named the Medallion Lecturer at the Institute of Mathematical Statistics in 2009. Prof. Cai currently serves on the editorial board of the Frontiers of Statistics (book series). He was also the editor of The Annals of Statistics in 2010-2012. He received the Committee of Presidents of Statistical Societies (COPSS) Presidents' Award in 2008. He was elected as a Fellow of the Institute of Mathematical Statistics in 2006 and the President of International Chinese Statistical Association in 2016.

All interested are welcome!
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