

数据科学与大数据论坛

November 5, 2014, Shanghai

Room 2001, Guanghua East Building, Fudan University

主旨报告：

1:30-2:30 **张潼: 互联网时代的大数据技术**

Dr. Tong Zhang is currently directing Baidu's Big Data Lab, and is a professor at Rutgers University. Previously he worked at IBM T.J. Watson Research Center and Yahoo Research. Tong Zhang received a B.A. from Cornell University and a Ph.D. from Stanford University.

Abstract: 数据是当今社会发展的重要战略资源；而处理大数据的核心技术也成为最有价值的科技发展方向。在当今互联网时代，拥有大量数据的互联网公司在大数据技术和商业应用上取得了重大进展。本次报告将阐述当今互联网企业大数据发展现状，并以百度为例介绍大数据技术特别是大数据智能技术的积累和创新尝试；最后简单探讨大数据技术的发展趋势。

2:45-3:45 **马毅: 高维数据的低维结构寻踪**

Dr. Yi Ma is a Professor and the Associate Dean of the School of Information and Science and Technology, ShanghaiTech University. Previously he was a Principal Researcher and the Research Manager of the Visual Computing at Microsoft Research in Beijing and a professor at UIUC. Yi Ma received his B.S. from Tsinghua University and M.S. and Ph.D. from UC Berkeley.

Abstract: In this talk, we will discuss a new class of models and techniques that can effectively model and extract rich low-dimensional structures in high-dimensional data such as images and videos, despite nonlinear transformation, gross corruption, or severely compressed measurements. This work leverages recent advancements in convex optimization for recovering low-rank or sparse signals that provide both strong theoretical guarantees and efficient and scalable algorithms for solving such high-dimensional combinatorial problems. These results and tools actually generalize to a large family of low-complexity structures whose associated regularizers are decomposable. We illustrate how these new mathematical models and tools could bring disruptive changes to solutions to many challenging tasks in computer vision, image processing, and pattern recognition. We will also illustrate some emerging applications of these tools to other data types such as web documents, image tags, microarray data, audio/music analysis, and graphical models.

This is joint work with John Wright of Columbia, Emmanuel Candes of Stanford, Zhouchen Lin of Peking University, and my students Zhengdong Zhang, Xiao Liang of Tsinghua University, Arvind Ganesh, Zihan Zhou, Kerui Min and Hossein Mobahi of UIUC.

4:00-4:30 **Open Discussion Forum: 数学, 数据科学, 及大数据**

嘉宾: 柏兆俊、马毅、吴宗敏、张潼

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