

MIIS 2022

International Workshop On Mathematical Issues In Information Sciences

数据科学国际研讨会

17th-18th, Dec. 2022

TBSI

(founded in 2015)

Tsinghua-Berkeley Shenzhen Institute

Vision:

A world-class **transformative** research and education partnership to fuel economic growth with accelerated innovation through **trans-disciplinary** and **translational** research.

Mission:

An **ecosystem** for transformational technology research to address global challenges, new **trans-disciplinary research** programs, entrepreneurs and global leaders in science and technology.



Our Faculty 23 full time faculty

3 Professors



Xiao-Ping Zhang
Signal, Data and Information Processing and Communications



Victor Chan
Big-data analytics and optimization, discrete-event simulation, agent-based simulation, and their applications



Ercan E. Kuruoglu
Data/Information Science, Machine Learning, Statistical Signal Processing, Remote Sensing, Information and Coding Theory, System and Noise Modelling, Telecommunications, Image Processing

8 Associate Professors



FU Hongyan
Integrated photonics and their applications for communications and sensing



WU Qiuwei
Decentralized/distributed operation and control of power systems with high penetration of renewables



HAN Yuxing
Artificial Intelligence, Sensor Networks, Image/Video Processing



HUANG Shao-Lun
Information theory, Deep Learning



Faizal Nadeem Khan
Machine Learning, Applications in Fiber-optic and Wireless Communications



XU Yinliang
Multiagent System, distributed control, distributed optimization, artificial intelligent algorithms design and its application



GUO Ye
Power and energy systems, electricity markets, machine learning, Energy Internet



LI Xinghui
Opto-electronics, Information, Optical metrology, Diffraction optics

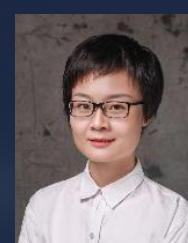
12 Assistant Professors



XIAO Li
Big-data analytics and optimization, machine learning, smart grid, energy Internet, cyber-physical system



ZHANG Xuan
Control theory, optimization, machine learning, smart grid, energy Internet, cyber-physical system



LI Yang
Transfer learning, representation learning, spatial algorithms



DING Wenbo
Energy Harvesting, Smart Sensing, Signal Processing, Robotics, Internet of Things, Artificial Intelligence



YE Min
Coding theory, Information Theory, Machine Learning



HUANG Ruqi
Geometry Processing and 3D Computer Vision



GENG Zihan
Optical Signal Processing, Machine Learning



WEI Xiaoli
Limitations of machine learning with stochastic controls



CHEN Xinlei
Cyber Physical Systems, Ubiquitous Computing



TANG Yansong
Computer vision and pattern recognition



GUAN Xun
Intelligent Photonics, Electronics and Information System



DONG Kaichen
Smart photonic and MEMS devices based on phase transition

Our Disciplines

- Electronic Science and Technology
- Information & Communication Engineering
- Computer Science and Technology
- Control Science and Engineering
- Instrument Science and Technology
- Applied Economics
- Electrical Engineering
- Civil Engineering
- Management Science and Engineering

Interdisciplinary Education

- Major + Cross Courses
- Redesigned Admission Process with Application & Interview

Ph.D. Program

- 1 year of Residency in Berkeley
- Prelim & Qualifying Exams
- Financial Support
- Tsinghua's Ph.D. + a proof of visit at UCB

International Experience

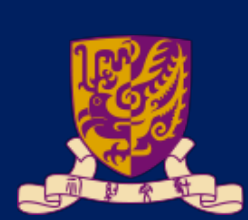
- English Instruction
- International Students
- China and US Experience

Dual Master's Degree Program

- 9 months in UCB
- Tsinghua M.S. and Berkeley M.Eng.



深圳市大数据研究院
Shenzhen Research Institute of Big Data



香港中文大學(深圳)
The Chinese University of Hong Kong, Shenzhen



清华-伯克利深圳学院
Tsinghua-Berkeley Shenzhen Institute



雷达信号处理国家级重点实验室
National Key Laboratory of Radar Signal Processing



综合业务网理论及关键技术国家重点实验室
State Key Laboratory of Integrated Services Networks



鹏城实验室
PENGCHENG LABORATORY

广东省大数据计算基础理论与方法重点实验室
GuangDong Key Laboratory of Big Data Computing



国家健康医疗
大数据研究院(深圳)
NATIONAL HEALTH DATA INSTITUTE, SHENZHEN