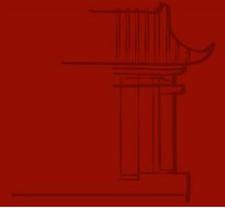# NEWSLETTER 2021 Issue 6

Founded in December 2017, the **Center on Frontiers of Computing Studies** (CFCS), Peking University (PKU), is a new university initiative co-founded by Professors John Hopcroft (Turing Awardee) and Wen Gao (CAE, ACM/IEEE Fellow). The center aims at developing the excellence on two fronts: research and education. On the research front, the center provides a world-class research environment, where innovation and impactful research is the central aim. On the education front, the center is deeply involved in the **Turing Class**, an elite undergraduate program that draws the cream of the crop from the PKU undergraduate talent pool. New curriculum and pedagogy are designed and practiced in this program, cultivating a new generation of computer scientist/engineers who are solid in both theories and practices. MORE

We are still seeking applicants from all areas of computer science for tenured/tenure-track faculty positions. It is highly recommended that applicants submit complete applications sooner than later as the positions are to be filled quickly. To Apply

FEATURED NEWS

Welcome New Faculty Members
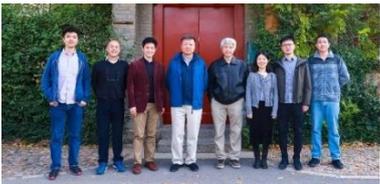Autumn 2020, PKU CFCS

Welcome Dr. Libin Liu, Dr. Kuan Cheng, and Dr. Xiao Yuan (from left to right) to join CFCS, Peking University as assistant professors.

Libin Liu received his Ph.D. from Tsinghua University. His research interests lie in computer graphics, character animation, physics-based simulation, motion control, and robotics.

Kuan Cheng received his Ph.D. from Johns Hopkins University. His research interests lie in computational models and complexity, pseudo randomness and coding, machine learning, networks.

Xiao Yuan received his Ph.D. from Tsinghua University. His research interests lie in quantum computing, quantum information, quantum resource theories. MORE

The 6th Youth Forum on Frontiers of Computing
October 17th-18th, 2020, PKU CFCS

The center hosts the CFCS Youth Forum on Frontiers of Computing twice a year, which has become a platform for attracting talented young computer scientists from around the world. We invite candidates to give talks to introduce their research during the forum and take the opportunity to introduce the center to them.

The 6th Youth Forum on Frontiers of Computing was held successfully online with 10 speakers being invited to share their research works, the topics of which cover quantum algorithms, computer vision, deep learning, etc. Prof. John Hopcroft, director of CFCS, highly recommended young scholars to join CFCS whose focus is on basic research and high-quality of teaching, and to contribute to China's education and research. MORE

The 16th Conference on Web and Internet Economics (WINE 2020)
December 7th-11th, 2020, PKU CFCS

国际互联网经济学术会议
THE CONFERENCE ON WEB AND INTERNET ECONOMICS

Over the past decade, research in theoretical computer science, artificial intelligence, and economics has joined forces to tackle problems involving incentives and computation. These problems are of importance in application areas like the Web and the Internet that involve large and diverse populations. The WINE is an interdisciplinary forum for the exchange of ideas and results on incentives and computation arising from these various fields.

WINE 2020, organized by CFCS, Peking University, was successfully held online from December 7th to 11th with the more than 300 attendance from the field of theoretical computer science, becoming the largest scale of conference in WINE's history. Live-streamed 8 hours per day on three platforms, WINE 2020 focuses on the latest development and cutting-edge issues of internet economics and related disciplines, garnering over 10,000 views. MORE

The 3rd Mini Research Symposium of CFCS and Turing Class
December 5th, 2020, PKU CFCS

Mini Research Symposium is a featured student academic activity organized by CFCS, Peking University twice a year. Simulating an international conference, the symposium serves as a "training ground" for students, providing them an opportunity to present their works, promote their ideas, and engage in interactive communications, so as to prepare them for the future much bigger international stage.

23 students from CFCS and Turing Class signed up for the 3rd Mini Research Symposium to present their latest research works and to give tutorials on the cutting-edge issues of their research fields, including computer graphics, computational economics, machine learning, theoretical computer science, and quantum computing. Organized by students themselves, this symposium consists of four sessions: lightning talk, poster exhibition, tutorial and panel discussion, attracting more than 100 students to the activity. MORE

TURING CLASS NEWS AT A GLANCE

October-December 2020, PKU CFCS

Welcome New Students from Turing Class
On October 27th, the opening ceremony for Turing Class of 2019 and 2020 was held at Peking University. "You are at an exciting phase in your life. The next four years will play a major role in your future. The courses you will take, the faculty you will work with, and your fellow students will have a major impact on you," said Prof. John Hopcroft, director of Turing Program Steering Committee. MORE

Turing Class Students Won the Silver Medal in SC20
In the early morning of November 20th, the results of Supercomputing Conference 2020 (SC20) Student Cluster Competition finals were announced. The team formed by students from the School of EECS, Peking University, won the silver medal. It is worth mentioning that 5 out of the 6 members in the team come from the Turing Class. Congratulations! MORE

INVITED TALKS

October-December 2020, PKU CFCS

CFCS welcomes visiting scholars from various fields and has hosted several tracks of invited talks, which are open to the public.

Big Graphs: Challenges and Opportunities

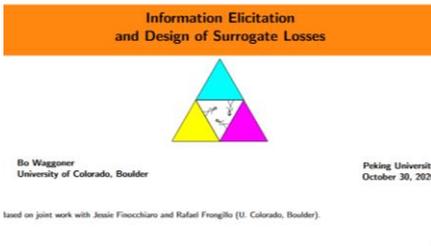*Prof. Wenfei Fan, University of Edinburgh*

Adversarial Examiners and Generative Models

Prof. Alan Yuille, Johns Hopkins University

Surface Maps and Layouts

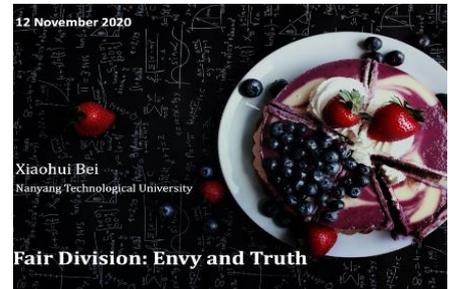*Prof. Leif Kobelt, RWTH Aachen University*

Information Elicitation and Design of Surrogate Losses

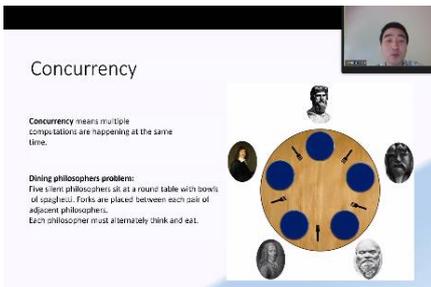*Dr. Bo Waggoner, University of Colorado*

Quantum Simulation Based on Trapped Ions

Prof. Heng Shen, Shanxi University

Fair Division: Envy and Truth

Prof. Xiaohui Bei, Nanyang Technological University

Quantum Temporal Logic

Dr. Nengkun Yu, University of Technology Sydney

Monotone Additive Statistics

Dr. Xiaosheng Mu, Princeton University

Quantum Chemistry Simulation in the NISQ era

Dr. Dingshun Lv, Huawei