



NEWSLETTER

2019 ISSUE 2



Founded in December 2017, the **Center on Frontiers of Computing Studies (CFCS)**, Peking University (PKU), is a university new 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 will provide a world-class research environment, where innovation and impactful research is the central aim. On the education front, the center deeply involves 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 scientists/engineers who are solid in both theories and practices.

FEATURED NEWS

Turing Award Laureate Professor Silvio Micali Joins Peking University as Visiting Chair Professor

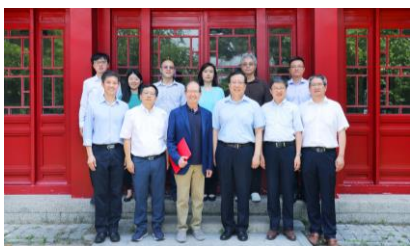
June 12th, 2019, PKU CFCS



CFCS welcomed Professor Silvio Micali of MIT in No.5 Courtyard of Jingyuan garden. President Hao Ping issued Professor Silvio Micali the letter of appointment as Visiting Chair Professor of Peking University. More than 100 PKU faculty and students attended the ceremony.

Professor Micali, Ford Professor of Engineering at MIT and recipient of Turing Award in 2012, will serve as the “Turing Advisor” of the Peking University Turing Graduate Program, spearheaded by Professor John Hopcroft in 2017, an elite program for educating and cultivating the future leaders in the new era of computing.

Following the ceremony, Professor Micali delivered a thought provoking speech on “Proofs, Secretes, and computation.”



Open Source Projects: TensorLayer 2.0 and Deep Reinforcement Learning Model Zoo

June 2019, PKU CFCS



Tensorlayer is a popular deep learning and reinforcement learning library that helps researchers and engineers in building complex learning workflows. Dr. Hao Dong, a new faculty member of CFCS, first released it in September 2016. In May 2019, under the strong support of PKU CFCS, Rundi Wu (PKU), Ruihai Wu (PKU), Hao Dong (PKU) and Jingqing Zhang (ICL) releases the 2.0 version. In June 2019, the community released a deep reinforcement learning model zoo:

https://github.com/tensorlayer/tensorlayer/tree/master/examples/reinforcement_learning



CFCS ACADEMIC EVENTS

The 3rd Youth Forum on Frontiers of Computing

April 4th, 2019, PKU CFCS



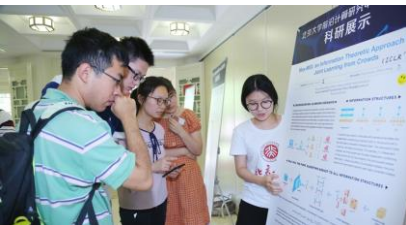
The center hosts the CFCS Youth Forum on Frontiers of Computing twice a year, which has become a platform for attracting talented young computer scientists from around the world. We invite candidates to give talks to introduce their research during the forum, and take the opportunity to introduce the center to them. With an ever increasing dynamic in the Chinese IT industry and partnership with universities, we also invite industry leaders to explore collaboration opportunities.



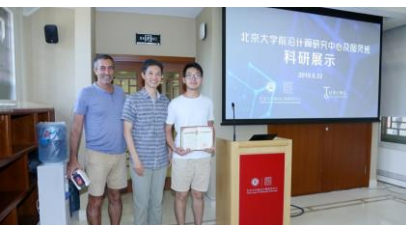
The 3rd Youth Forum was successfully held in spring with 8 speakers. Around 80 faculty and students from universities and research institutes and researchers from IT industry attended the event. Professor John Hopcroft, the director of CFCS welcomed everyone during the opening session and sincerely hoped that young scholars with excellent teaching ability and scientific research potential will join CFCS for the contribution to China's education and research.

The 1st Research Forum of CFCS & Turing Class

June 22nd, 2019, PKU CFCS



The 1st Research Forum of CFCS and Turing Class was successfully held in June. Simulating an international conference, the forum serves as a “training ground” for the students, providing them an opportunity to present their works, promote their new findings, and engage in interactive communications, so as to prepare them for the future much bigger international stage.



Altogether, 9 groups of undergraduate students and 7 groups of graduate students participated in this exhibition and presented their recent works, some of which have been accepted by top international conferences, such as CVPR, ICLR, ICML and SIGGRAPH. Around 50 faculty and students from top universities attended the poster session. amazed by the outstanding performance of the youth.



Peng Cao, Yilun Xu received the “Best Poster” award with the poster entitled “Max-MIG: An Information Theoretic Approach for Joint Learning from Crowds”, initially appeared in ICLR 2019, and Rundi Wu received the “Best Presentation” award with his SIGGRAPH 2019 work on “Learning Character-Agnostic Motion for Motion Retargeting in 2D”. All three students are from the Turing Class 2016.



New Faculty Member

We welcome Dr. Hao Dong to join the center in July 2019.



Hao Dong received his PhD degree in Computing Research of Imperial College London. He is interested in Deep Learning, Computer Vision and Medical Imaging, and has publications on ICCV, TIFS, TMI, TNSRE, ACM MM, etc. He is also an active reviewer of SIGGRAPH, TIP, TKDE, Neurocomputing, etc. He devotes to popularise Artificial Intelligence technology; he is the author of TensorLayer which won the Best Open Source Software Award at ACM Multimedia 2017.

Visiting Scholars and Invited Talks

April – June, 2019

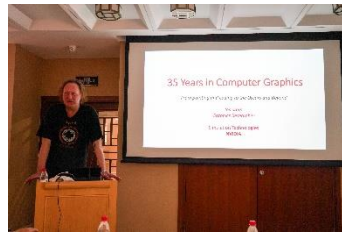
CFCS welcomes visiting scholars from various fields and has hosted several tracks of invited talks, which are open to public.



Distributionally Robust Optimization Driven by Stochastic and Online Data
Prof. Yinyu Yan, Stanford University



Finding the Right Representations for Generative Modeling of 3D Shapes
Prof. Hao Zhang, Simon Fraser University



30 years in Computer Graphics: From painting and coding to the Oscars and Beyond
Dr. Jos Stam, Nvidia



Perceptual Display: Towards Reducing Gaps Between Real World and Displayed Scenes
Dr. Karol Myszkowski, Max-Planck-Institut für Informatik



Deep Belief Nets (online talk)
Prof. Geoffrey Hinton, University of Toronto



Classification Program for Counting Problems
Prof. Jin-Yi Cai, University of Wisconsin-Madison



Proofs, Secrets, and Computation
Prof. Silvio Micali, MIT



Algorithmic Meta-theorems, where Logic Meets Algorithms
Prof. Yujia Chen, Fudan University