

Press release

For immediate release

Two HKU researchers named 35 Innovators Under 35 for China by MIT Technology Review

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Two young researchers from the University of Hong Kong (HKU) have been named among the 35 Innovators Under 35 for China in 2022 by MIT Technology Review. Dr Yi Yang from the Faculty of Science is named an Inventor, Dr Chao Xiang from the Faculty of Engineering is honoured a Pioneer.

The award is an annual recognition of young and exceptional innovators who are pushing the boundaries of science and technology. The 35 young innovators from China come from diverse fields, including computer science, biology and life sciences, chemistry, physics, materials science, semiconductors, and quantum computing. They are categorised into “pioneers”, who constantly explore the boundaries of human science; “visionaries”, who understand the direction of technological change; “inventors”, who constantly come up with inspiration; “entrepreneurs”, who actively promote the implementation of cutting-edge technology; and “humanitarians”, who use technology for the greater good and prioritise human concerns.

The two HKU Innovators Under 35 are:

Dr Yi Yang (Inventor)

Assistant Professor, Department of Physics, Faculty of Science

Dr Yi Yang is an accomplished researcher in the field of nanophotonics and optical physics. His research focuses on topics such as free-electron-light interaction and synthetic gauge fields. His past work includes a general framework that incorporates nonclassical optical responses at the extreme nanoscale, synthesis and observation of non-Abelian gauge fields in real space, an upper limit to spontaneous free-electron radiation in arbitrary photonic environments, and the observation of enhanced free-electron-light interaction from photonic flatbands.

Dr Yang’s academic journey started at Peking University, where he obtained his bachelor’s and master’s degrees in 2011 and 2014, respectively. He then got his PhD degree at Massachusetts Institute of Technology (MIT) in 2019, and continued to work as a postdoc at MIT as a postdoc before joining HKU as Assistant Professor in 2022. In addition to the Innovators under 35 award, Dr Yang has been awarded the 2022 Excellent Young Scientists (Hong Kong and Macau) fund under the National Natural Science Foundation of China, an organisation managed by the Ministry of Science and Technology (MOST).

Dr Chao Xiang (Pioneer)

Assistant Professor, Department of Electrical and Electronic Engineering, Faculty of Engineering

Dr Chao Xiang’s research focuses on the development of heterogeneously integrated photonics and optoelectronics devices on silicon. He developed the first prototype of laser soliton microcomb on silicon which combines semiconductor lasers and ultra-high-Q microresonators for electrically-pumped low-noise soliton optical frequency comb. This device marks a critical step toward large-scale applications of optical frequency comb technologies in areas such as optical interconnects, sensing,



metrology and so on. His group (Photonic Integrated Circuits Laboratory, PIXlab) focuses on but not limited to heterogeneous photonic integration, silicon photonics, semiconductor lasers and photonic integrated circuits.

Before joining HKU, Dr Xiang was a Postdoctoral Scholar and obtained his Ph.D. degree at University of California, Santa Barbara. He obtained his B.E degree from Huazhong University of Science and Technology and M.Phil. degree from the Chinese University of Hong Kong.

MIT Technology Review established the Innovators Under 35 list in 1999. Over the years, the list evolved to highlight 35 innovators annually. In 2010, the search for the most promising innovators expanded to include regional editions of the list. Today, there are six regional versions of the list, covering Latin America, Europe, China, India, Asia Pacific, and the Middle East and North Africa (MENA).

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