

Press release

Professor YAO Wang Receives Huang Kun Prize for Solid Physics and Semiconductor Physics

August 28, 2023



Professor Yao Wang from HKU Physics receives the prestigious Huang Kun Prize (for solid physics and semiconductor physics) from the Chinese Physical Society.

The University of Hong Kong (HKU) is pleased to announce that Professor YAO Wang, Chair Professor in the Department of Physics of the Faculty of Science, has been awarded the prestigious Huang Kun Prize (for solid physics and semiconductor physics) by the Chinese Physical Society.

The Huang Kun Prize, named in honour of the late Chinese physicist and pioneer of China's Semiconductor Physics Professor Huang Kun, recognizes and rewards exceptional achievements in solid-state physics and semiconductor physics. Presented biennially by the Chinese Physical Society, this award is conferred upon a maximum of two distinguished individuals at a time.

Upon receiving the award, Professor Yao said, "It is a great honor to receive this award. I attended college at Peking University, a place where Professor Kun Huang worked for 26 years. Since my student days, Professor Huang has been one of the physicists I admire the most, so this award holds particular significance for me. I would also like to express my special thanks to all my collaborators over the years, and my colleagues at the University of Hong Kong for their kind support."

Professor Yao has concentrated his research on two-dimensional materials and their heterostructures. Together with his collaborators, he pioneered concepts in valleytronics in 2D materials and their moiré

superlattices. His research has spearheaded the development of the emerging field of valley optoelectronics and introduced the concept of moiré excitons in twisted two-dimensional semiconductors.

Professor Yao Wang's biography

Professor Yao Wang obtained his BSc from Peking University in 2001 and a PhD in physics from the University of California, San Diego in 2006. He joined the University of Hong Kong in September 2008 and currently holds the position of Chair Professor in the Department of Physics.

His research interests span condensed matter physics, quantum physics, and optics, with a current focus on two-dimensional materials and their heterostructures. Professor Yao has played a decisive role in creating an important new research direction – valley optoelectronics in 2D materials. This groundbreaking field aims to exploit the valley, a quantum degree of freedom of the electron, in future optoelectronic devices. His contributions in this area have been instrumental in advancing our understanding and paving the way for innovative applications.

Professor Yao has been named one of the "Highly Cited Researchers" by Clarivate Analytics from 2018 to 2022. His exceptional achievements and contributions to the field of physics have been recognised through various prestigious awards, including the 2021 Xplorer Prize, the 2021 (Ninth) Nishina Asia Award, the OCPA Achievement in Asia Award (Robert T. Poe Prize) in 2014 from the International Organization of Chinese Physicists and Astronomers (OCPA), the Croucher Innovation Award in 2013 and the Croucher Senior Research Fellowship in 2020 from the Croucher Foundation, RGC Senior Research Fellowship in 2021 from Research Grant Council, and the Outstanding Researcher Award for 2014/15 and Outstanding Young Researcher Award for 2012/13 from The University of Hong Kong. He is elected as fellow of American Physical Society and fellow of Optica (Optical Society of America).

Click here to learn more about the research of Professor Yao: <https://www.physics.hku.hk/~wangyao/>

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