

City University of Hong Kong
Department of Electrical Engineering &
Optica Student Chapter
Jointly present a Seminar on

Next-generation silicon photonics

by

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Date : **24 April 2024 (Wednesday)**
Time : **10:00 am – 11:00 am**
Venue : **B4702, Yeung Kin Man Academic Building**
City University of Hong Kong
Language : English

Abstract

In the past decades, silicon photonics has been developed very successfully for various applications. In this talk, we give a review for recent progresses of silicon photonics in our group and also give a discussion about next-generation silicon photonics with four “beyonds”, including: (1) Silicon photonics beyond the singlemode regime to enabling very high-performance passive devices; (2) Silicon photonics beyond silicon for realizing active devices; (3) Silicon photonics beyond optical communications for exploring new applications; (4) Silicon photonics beyond 1550nm for extending the working window.

Biography



Daoxin Dai received the B. Eng. degree from the Department of Optical Engineering of Zhejiang University in 2000 and obtained his Ph. D. degree from the Royal Institute of Technology (KTH), Sweden, in 2005. He joined Zhejiang University as an assistant professor in 2005 and became an associate professor in 2007, a full professor in 2011. He worked at the University of California at Santa Barbara as a visiting scholar in 2008-2011. Currently he is the QIUSHI Distinguished Professor at ZJU and is leading the Silicon Integrated Nanophotonics Group. He has developed multimode silicon photonics and silicon-plus photonics for enabling high-performance silicon photonic devices and large-scale photonic integrated circuits, including ultra-low-loss silicon photonic waveguide delaylines, ultra-high-Q silicon photonic resonators, ultra-low-crosstalk arrayed-waveguide gratings, FSR-free multimode waveguide grating filters, calibration-free photonic switches, 2×2 FP cavity optical modulators, record-high gain-bandwidth-product Ge/Si avalanche photodiodes, digitally-tunable dispersion controllers, etc. He has published more than 300 international journal papers at Science, Nature, Nature Photonics, Nature Communications, Light: Science & Applications, Optica, Laser & Photonics Reviews, etc. Prof. Dai is one of Most Cited Chinese Researchers (Elsevier) and has given >100 plenary/keynote/tutorial/invited talks at prestigious international conferences. He is the Winner of National Science Fund for Distinguished Young Scholars (2017), Wang-Daheng Award of Optics (2020), the first-class Natural Science Award of Zhejiang Province (2020), the first-class Award of Optics of Chinese Optical Society (2020). He has severed as a general co-chair of ACP 2022, OECC 2023, etc. Currently Prof. Dai is the Dean of the College of Optical Science and Engineering and the Chair of Optical Society of Zhejiang Province, and he has been elected as Optica (former OSA) Fellow in 2021.

~~~~~ All are welcome ~~~~~