

WORKSHOP - silicon photonics

Description:

In the past decade silicon Photonics has become one of the most attractive technologies for developing integrated optoelectronic devices. Various silicon photonic building blocks have been developed for not only optical interconnects in near infrared, but also optical sensing in visible and mid-infrared ranges. Large-scale silicon photonic integrated circuits have also been demonstrated successfully. Currently more and more applications for silicon photonics are being explored. This workshop will focus on the future of silicon photonics, including the challenges in the designs, fabrications, tests as well as packages for various devices and circuits.

Organizer:

Zhiping Zhou, Peking University, China.

Daoxin Dai, Zhejiang University, China.

Liu Liu, South China Normal University, China.

Invited Speakers

1:30-1:45 Koji Yamada, Natl Inst of Adv Industrial Sci & Tech, Japan

Topic: A 300-mm-wafer silicon photonics technology for energy-efficient and advanced information systems

1:45-2:00 Minbin Yu, Shanghai Institute of Microsystem and Information Technology, CAS, China

Topic: Si Photonics technology and PIC process integration challenge

2:00-2:15 Chengling Xu, Synopsys, Canada

Topic: Advanced PIC Design Flow: From Concept to Manufacture

2:15-2:30 Tao Chu, Zhejiang University, China

Topic: Lasers on silicon

2:30-2:45 Di Liang, Hewlett Packard Lab, USA

Topic: Heterogeneously Integrated Quantum-Dot Photonics on Silicon

2:45-3:00 Yating Wan, UC Santa Barbara, USA

Topic: On-chip detection from directly modulated quantum dot microring lasers on Si

3:00-3:15 Lin Zhang, Tianjin University, China

Topic: Robust generation of microresonator-based frequency combs

3:15-3:45 Tee Break

3:45-4:00 Xi Xiao, FiberHome Technologies, WRI, China

Topic: How far can pure-silicon optical modulators go, and what's next?

4:00-4:15 Xinlun Cai, Sun Yat-sen University, China

Topic: Hybrid Silicon and Lithium Niobate Platform for Optical Signal Processing

4:15-4:30 Ching-Fuh Lin, Innovative Photonics Advanced Research Center, National Taiwan University

Topic: Extremely broadband infrared detection based on Si-technologies

4:30-4:45 Yikai Su, Shanghai Jiaotong University, China

Topic: On-chip optical interconnects with high-order mode multiplexing based on subwavelength-grating couplers

4:45-5:00 Lin Yang, Institute of Semiconductor, CAS, China

Topic: From optical space switching to optical mode switching

5:00-5:15 Yu Yu, Huazhong University of Science and Technology, China

Topic: Mode-selective four wave mixing using silicon waveguide

5:15-5:30 Jianwei Wang, Peking University, China

Topic: Large-scale silicon photonic circuits for quantum information technologies