

Title: Silicon Photonics**Chairperson:**

Zhiping Zhou, Beijing University

Juren Michel, MIT

Zhaohui Li, Sun Yat-Sen University

Description:

Silicon Photonics, a chip size optical solution using silicon as a material platform to develop and fabricate optoelectronic devices, has drawn great attention in recent years due to its promise of cost-effective optoelectronic integration using existing, high-volume CMOS fabrication technology. The main drive for the rapid development of silicon photonics has been its application in energy-efficient, high-speed optical communications and interconnects for high performance computing systems. In the past decade, major silicon photonics building blocks have been developed and proven viable for these high-speed applications. At the same time, other unique optical properties of silicon have been employed for biomedical sensing, nonlinear optics, as well as mid infrared applications. The silicon photonics market is expected to grow even fast in the next decade, however, many challenges still remain. This workshop is to provide a forum for international experts to present and discuss their vision, recent progresses, and future challenges of Silicon Photonics and its applications. A series of invited presentations, covering a variety of subjects, are scheduled for this half-day workshop in Guangzhou, China.