

Joint CQSE & CASTS Seminar

「Jun. 12, 2020 (Friday)」

- Time : 14:30~15:30
- Place : Rm716, New Physics Building
- Speaker: **Prof. Ming-Chang (Mark) Lee**
PRC, IPT, and EE of NTHU
國立清華大學光電研究中心、光電所、電機系
- Title : **Integrated Si Photonics Platform
Potentially Applied for Quantum
Photonics Chips**

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Social distance: 1.5m indoors.

**Sponsored by Center for Quantum Science and Engineering (CQSE) 量子科學與工程研究中心
and Center for Advanced Study in Theoretical Sciences (CASTS) 理論科學高等研究中心, NTU

Joint CQSE and CASTS Seminar

2020
Jun. 12, Friday

TIME Jun. 12, 2020, 2:30~3:30pm
TITLE Integrated Si Photonics Platform Potentially Applied for Quantum Photonics Chips
SPEAKER Prof. Ming-Chang (Mark) Lee
(Director, NTHU Photonics Research Center
Professor, Institute of Photonics Technologies
& Department of Electrical Engineering
National Tsing Hua University)
PLACE Rm716, CCMS & New Physics Building, NTU

Abstract

Integrated Si optoelectronics and photonics are the key technology platform for developing large-scale integrated optics for various applications. For example, multi-channel integrated Si/Ge transceivers are recently demonstrated for over 200Gbps data transmission aiming at data centers, high-performance cluster computers, and cloud servers. Meanwhile, these technologies are also exploited for implementing compact sensor chips for biological and chemical detection. In this talk, I will introduce several key Si photonic components developed in my group and fabricated in a CMOS research lab in Taiwan, including MEMS tunable resonators, high-speed Si modulators, Si/Ge heterojunction waveguide photodetectors and ultra-low voltage Si/Ge SAM avalanche photodiodes. Also, I will introduce our recent developed SiN based photonics for implement low-loss quantum photonic chips with device footprint less than 1 cm².

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▲ 無法保持社交距離時 (室內 1.5 公尺) 請戴口罩 Please wearing a mask whenever social distancing (1.5m indoors) is impractical.

▲ 拒絕有發燒或呼吸道症狀者入場 Individuals with fever or respiratory symptoms are prohibited from participating in the event.

▲ 場地備有酒精供雙手消毒使用 We provide alcohol sanitizer to keep your hands clean.

