We3E-1 **15:00-15:15**

Cascaded Micro-ring Resonators Enabled Ultrahigh Resolution On-Chip Computational Spectrometer

Xinchen Wan, Haoyang Sun, Tongtian Zhang, Guangya Zhou
National University of Singapore

This paper reports an advanced high resolution on-chip computational spectrometer achieved through cascaded thermal tuned micro-ring resonators (MRRs). Our proposed spectrometer is able to achieve high resolution (<30 pm).

We3E-2 **15:15-15:30**

Integrated Programmable Microcomb Shaper for Optical Convolution Processing

Haoran Zhang[1] Xiaotian Zhu[2], Shifan Chen[1], Yifu Xu[1], Jiajia Wang[1], Zhihui Liu[1], ShuaiWang[1], Yunping Bai[1], Brent E. Little[3], Roberto Morandotti[4], David J. Moss[5], Sai T. Chu[2], Xingyuan Xu[1]
[1]Beijing University of Posts and Telecommunications, [2]City University of Hong Kong, [3]QXP Technology Inc., [4]INRS-Énergie, Matériaux et Télécommunications, [5]Swinburne University of Technology

We present an integrated programmable microcomb shaper (PMS) based on a CMOS-compatible, high-index doped silica glass platform, capable of processing 100.3-GHz microcombs and demonstrated in optical convolution processing.

We3E-3 **15:30-15:45**

Second-order Microring Thermo-optic Switch on SOI with Sub-5 μs Response Time

Haojie Xue, Yuanhao Li, Lei Zhang
Beijing University of Posts and Telecommunications

We demonstrate a pulsed-driven, second-order microring thermo-optic switch on silicon-on-insulator (SOI), reducing the response time from 31 μs to sub-5 μs.

We3E-4 **Invited** **15:45-16:15**

On-chip Ultra-Low-Loss Chalcogenide Glass Optical Waveguides and Resonators for Mid-Infrared Photonics

Hansuek Lee[1], Daewon Suk[1], Kiyoung Ko[1], Soobong Park[1], Kwang-Hoon Ko[2], Duk Choi[3], Fabian Rotermund[1]
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We present mid-infrared chalcogenide glass on-chip waveguides and resonators with a propagation loss of 0.29 dB/m and a Q-factor of 67 million, enabling applications including Brillouin lasers with 85 Hz linewidth and dispersive-wave supercontinuum generation.