Room E (Sydney), 2F

Chair: Lei Zhang
(Beijing University of Posts and Telecommunications)

Tu1E
Thin-Film & Reconfigurable Photonics

June 30 (Tue), 2026
08:30-10:00

Tu1E-1 **08:30-08:45**

Programmable On-Chip Bandpass Filtering via Grating Bandgap Manipulation

Boshu Sun, Lan Li
Westlake University

We propose a novel grating-based control strategy for programmable filtering, enabling broadband wavelength tuning and intensity modulation for narrowband filtering. Experimental results demonstrate a tunable wavelength range of 12 nm and an attenuation exceeding 30 dB.

Tu1E-2 **08:45-09:00**

Demonstration of the Single-Ring Vernier Effect Enabling Two-Ring Flat-Top Vernier WDM Filters

Taein Kim, Seungwon Kim, Youngbin Kim, Youngik Sohn, Kyoungsik Yu
Korea Advanced Institute of Science and Technology

We demonstrate the Single-Ring Vernier Effect (SRVE): one microring with two-point coupling creates a virtual cavity, inducing the Vernier effect. Using SRVE, two-ring filters enable Vernier and flat-top response for WDM.

Tu1E-3 **Invited** **09:00-09:30**

Hybrid Thin Film Silicon Photoncis Integration

Yi-jen Chiu
National Sun Yat-Sen University

Thin-film photonics integration using different material templates will be introduced and discussed in the presentation. Using spot size converter (SSC) and different substrate, photonic devices performance can be promoted by taking advantages of material properties.

Tu1E-4 **09:30-09:45**

CMA-ES-Assisted Spectral Flattening of a Multi-Electrode Thermally Tunable 16-Channel Arrayed Waveguide Grating

Yuanli Yue, Emmanuel Gooskens, Wim Bogaerts, Peter Bienstman
Ghent University-imec

We present an optimization approach for spectral flattening of a three-electrode 16-channel AWG using CMAES. Peak-to-peak transmission variation is reduced from 15.24 dB to 2.81 dB, significantly improving spectral uniformity for photonic tensor core applications.

Tu1E-5 **09:45-10:00**

Narrow-Band Optical Filtering Using Dual Mutually-Coupled SiN Microring Resonators

Tao Song, Lei Zhang
Beijing University of Posts and Telecommunications

We demonstrate a narrow-band optical filter employing two mutually coupled silicon nitride (SiN) microring resonators. The filter exhibits a 3-dB bandwidth of approximately 145 MHz and a shape factor of 1.89.