



The 14th IEEE Photonics Society - Hong Kong Chapter

Postgraduate Conference

December 7, 2013 (Saturday)

Room P4701, Floor 4, Academic 1
City University of Hong Kong



Conference Programme

8:45 – 9:10	Registration
9:10 – 9:15	Welcome Speech <i>(Dr. Calvin C.K. Chan, Chairman, IEEE Photonics Society - Hong Kong Chapter)</i>
9:15 – 10:45	Optical Communication (Papers A1-A6) <i>(Presider: Dr. Calvin C.K. Chan, Chinese University of Hong Kong)</i>
10:45 – 11:00	Coffee Break
11:00 – 12:15	Biophotonics I (Papers B1-B5) <i>(Presider: Dr. Alan P.T. Lau, Hong Kong Polytechnic University)</i>
12:15 – 14:00	Group Photo and Lunch <i>(Shing Hin Chinese Restaurant, Floor 8, Academic 1)</i>
14:00 – 14:45	Biophotonics II (Papers C1-C3) <i>(Presider: Dr. Nelson S.C. Chan, City University of Hong Kong)</i>
14:45 – 16:00	Photonic Devices (Papers D1-D5) <i>(Presider: Dr. Kevin K. Tsia, University of Hong Kong)</i>
16:00 – 16:15	Coffee Break
16:15 – 17:30	Nonlinear Optics (Papers E1-E5) <i>(Presider: Dr. Andrew W. Poon, Hong Kong University of Science and Technology)</i>
17:30 – 18:00	Break / Free Discussion
18:00 – 18:20	Certificate and Award Ceremony

Programme Details

Optical Communication

(Presider: Dr. Calvin C.K. Chan, Chinese University of Hong Kong)

- 9:15 – 9:30 <A1> **2.4Tb/s (10x240-Gb/s) PDM-64-QAM Unrepeated Transmission over 160 km SSMF using Hybrid EDFA/Raman Amplification**
Zhenhua Dong¹, Kangping Zhong¹, Yuliang Gao¹, Alan Pak Tao Lau¹,
Chao Lu¹, Liyan Huang², Chengpeng Fu², and Qianggao Hu²
¹*Hong Kong Polytechnic University* ²*Accelink Technologies Co., Ltd*
- 9:30 – 9:45 <A2> **256 Gb/s PM-16-QAM Quasi-Single-Mode Transmission over 2600 km using Few-Mode Fiber with Multi-Path Interference Compensation**
Qi Sui¹, HongYu Zhang², John D. Downie³, William A. Wood³,
Jason Hurley³, Snigdharaj Mishra⁴, Alan Pak Tao Lau¹, Chao Lu¹,
Hwa-Yaw Tam¹ and P.K.A. Wai¹
¹*Hong Kong Polytechnic University* ²*Tyndall National Institute*
³*Corning Inc.* ⁴*Telecommunications Business Group, Corning Inc.*
- 9:45 – 10:00 <A3> **A PMD Monitoring Scheme for Direct-Detection Optical OFDM Systems Using Code-Assisted Optical Subcarriers**
Tianwai Bo, Kam-Hon Tse, and Chun-Kit Chan
Chinese University of Hong Kong
- 10:00 – 10:15 <A4> **Design of Polymer Waveguide Couplers for Mode-division-multiplexing Applications**
Jiangli Dong and Kin Seng Chiang
City University of Hong Kong
- 10:15 – 10:30 <A5> **Unidirectional Emission III-V-on-silicon Microspiral Laser for Optical Interconnects**
Yu Zhang, Yuede Yang, and Andrew W. Poon
Hong Kong University of Science and Technology
- 10:30 – 10:45 <A6> **Two-mode Coupler-type Polymeric Waveguide Switch using Liquid Crystal Cladding**
Wing-Fat Ho and Hau-Ping Chan
City University of Hong Kong
- 10:45 – 11:00 **Coffee Break**

Biophotonics I

(Presider: Dr. Alan P.T. Lau, Hong Kong Polytechnic University)

- 11:00 – 11:15 <B1> **Asymmetric-detection time-stretch optical microscopy (ATOM) for ultrafast high-contrast cellular imaging**
Andy K. S. Lau, Terence T. W. Wong, Matthew Y. H. Tang, Xiaoming Wei, Kenneth K. Y. Wong, Ho Cheung Shum, and Kevin K. Tsia
University of Hong Kong
- 11:15 – 11:30 <B2> **Coherent laser source for high frame-rate optical time-stretched microscopy at 1.0 μm**
Xiaoming Wei, Andy K. S. Lau, Yiqing Xu, Anson H. L. Tang, Chi Zhang, Kevin K. Tsia, and Kenneth K. Y. Wong
University of Hong Kong
- 11:30 – 11:45 <B3> **Microring Resonator-based Microparticle and Cell Concentrator with Reconfigurable Trapping Capacity on an Optofluidic Chip**
Jiawei WANG and Andrew W. Poon
Hong Kong University of Science and Technology
- 11:45 – 12:00 <B4> **Speckle reduction of retinal optical coherence tomography based on contourlet shrinkage**
Jianbing Xu, Haiyan Ou, Edmund Y. Lam, P. C. Chui, and Kenneth K. Y. Wong
University of Hong Kong
- 12:00 – 12:15 <B5> **Wideband Raman-pumped wavelength-swept laser for optical coherence tomography system**
Jianbing Xu, Luoqin Yu, and Kenneth. K. Y. Wong
University of Hong Kong
- 12:15 – 14:00 **Group Photo and Lunch**
(Shing Hin Chinese Restaurant, Floor 8, Academic 1)

Biophotonics II

(*Presider: Dr. Nelson S.C. Chan, City University of Hong Kong*)

- 14:00 – 14:15 <C1> **Hyperspectral coherent anti-Stokes Raman scattering with principle component analysis for histology**
Jingjiang Xu, Baoshan Guo, Kenneth K.Y. Wong, and Kevin K. Tsia
University of Hong Kong
- 14:15 – 14:30 <C2> **Multisite laser stimulation system for neural optogenetic studies**
Anson H. L. Tang, Andy K.S. Lau and Kevin K. Tsia
University of Hong Kong
- 14:30 – 14:45 <C3> **Multi-criteria Optimization of 2D Spatial Dispenser Design for Biomedical Microscopy based on Pareto-front Construction**
Antony C.S. Chan, Andy K.S. Lau, Kenneth K.Y. Wong, Edmund Y. Lam, and Kevin K. Tsia
University of Hong Kong

Photonic Devices

(*Presider: Dr. Kevin K. Tsia, University of Hong Kong*)

- 14:45 – 15:00 <D1> **Surface-state- and two-photon-absorption-based PIN-integrated CROWs photomonitors**
Yu Li and Andrew W. Poon
Hong Kong University of Science and Technology
- 15:00 – 15:15 <D2> **Wideband fiber-chip coupling using waveguide grating coupler and high-numerical-aperture fiber**
Chao Xiang, Zhenzhou Cheng, Hon Ki Tsang, and Chun-Kit Chan
Chinese University of Hong Kong
- 15:15 – 15:30 <D3> **Analysis of Dispersion Effect on the Phase Reconstruction for Long-Period Gratings**
Bing Zou and Kin Seng Chiang
City University of Hong Kong
- 15:30 – 15:45 <D4> **A bilayer wire-grid thin-film polarizer for terahertz application**
Zhe Huang¹, Edward P. J. Parrott², Hongkyu Park³, Hau Ping Chan¹, and Emma Pickwell-MacPherson²
¹*City University of Hong Kong*
²*Chinese University of Hong Kong*
³*Samsung Advanced Institute of Technology*
- 15:45 – 16:00 <D5> **Designs of Silicon Nitride Coupled-Resonator Optical Waveguide-Based Biosensors for Visible Wavelengths**
Zhanshi Yao, Jiawei Wang and Andrew W. Poon
Hong Kong University of Science and Technology
- 16:00 – 16:15 **Coffee Break**

Nonlinear Optics

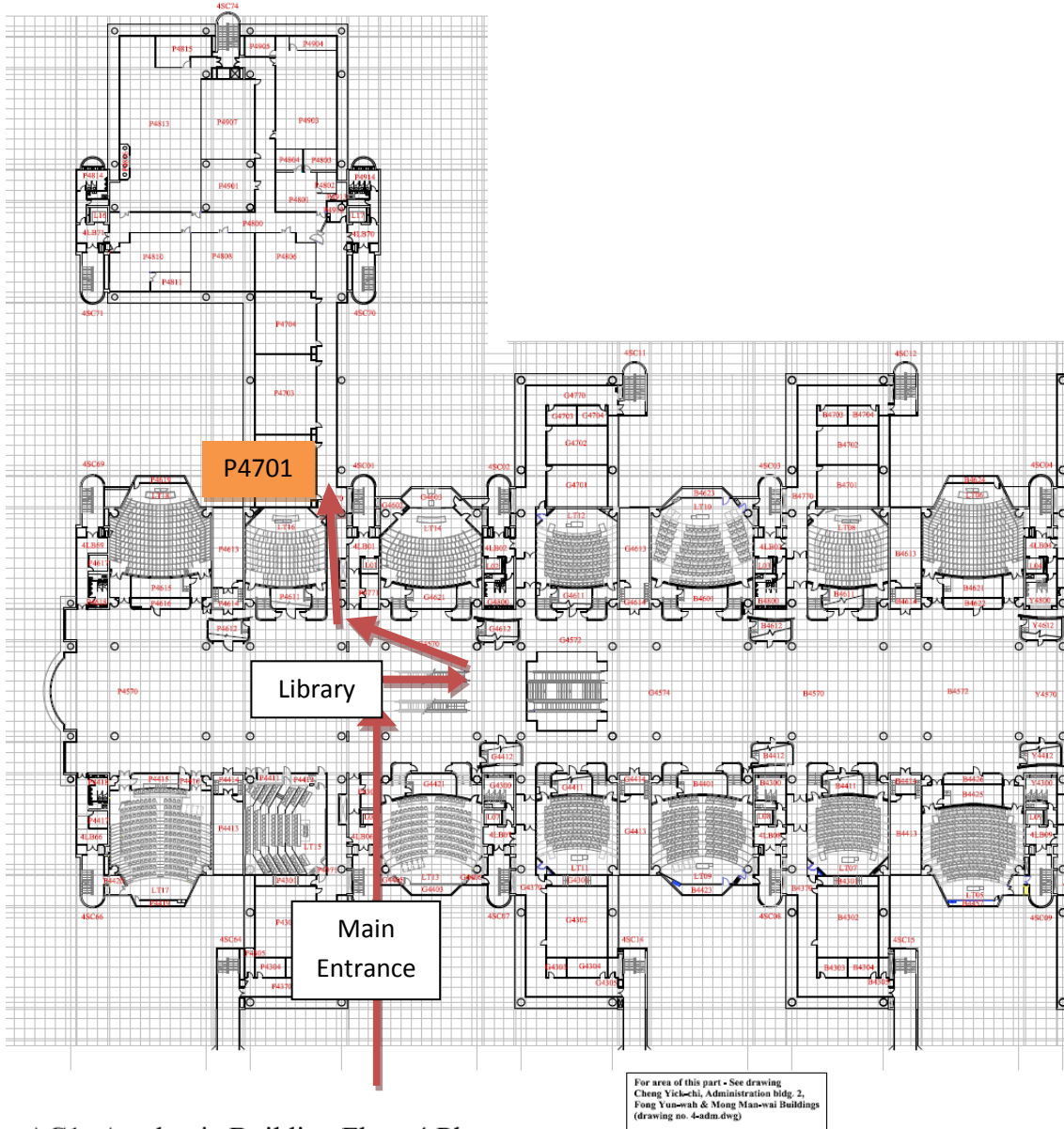
(Presider: Dr. Andrew W. Poon, Hong Kong University of Science and Technology)

- 16:15 – 16:30 <E1> **Raman-Assisted Compensation of Pump Depletion in a Fiber Optical Parametric Amplifier**
Xiaojie Guo, Xuelei Fu, and Chester Shu
Chinese University of Hong Kong
- 16:30 – 16:45 <E2> **Microwave Frequency Generation with Sideband Injection Locking in Fabry-Perot Laser Diodes**
Liqing Gan, Feng Li, Jie Liu, and P. K. A. Wai
Hong Kong Polytechnic University
- 16:45 – 17:00 <E3> **Semiconductor Laser with FBG Feedback for Chaotic Random Bit Generation**
Xiao-Zhou Li, Song-Sui Li, Jun-Ping Zhuang, and Sze-Chun Chan
City University of Hong Kong
- 17:00 – 17:15 <E4> **Ultrafast spectroscopy based on parametric spectro-temporal analyzer (PASTA)**
Chi Zhang, Bowen Li, Azamat Shaimardan, and Kenneth. K. Y. Wong
University of Hong Kong
- 17:15 – 17:30 <E5> **Single-shot spectral analysis of rogue waves and avoids**
Zhibo Ren, Yi Qiu, Kenneth K. Y. Wong, and Kevin Tsia
University of Hong Kong
- 17:30 – 18:00 **Break / Free Discussion**
- 18:00 – 18:20 **Certificate and Award Ceremony**

Directions to the Venue:

The conference will be held in Room P4701 on Floor 4 of Academic 1 (AC1). If you take MTR to CityU, you will first enter the campus through a tunnel from Festival Walk. After entering the main entrance (doors in red) on Floor 3, please take the escalator next to the library to Floor 4. You can then locate P4701 in the Purple Zone.

Contact Person: Dr. Nelson Sze-Chun Chan (3442-4227)



AC1- Academic Building Floor 4 Plan