# 2014 International Conference on Optical MEMS and Nanophotonics Program

**TUESDAY, 19 AUGUST 2014**

**TNa2: Resonators**
**Session Chair:** Aaron Danner, National University of Singapore, Singapore

08:45 **TNa2.1**: PLENARY:
NANOPHOTONICS FOR LARGE-SCALE PHOTONIC INTEGRATION
Professor Masaya Notomi FIEEE
NTT Basic Research Laboratories, Japan

09:30 **TNa2.2**: OPTICAL CHARACTERISTICS OF GAAS QUANTUM NANODISKS ARRAYS BY USING NEUTRAL BEAM TOP-DOWN PROCESS
Akio Higo[1], Takayuki Kiba[2,5], Yosuke Tamura[3,5], Cedric Thomas[3,5], Ichiro Yamashita[4], Akihiro Murayama[2,5], Seiji Samukawa[1,3,5]
[1]WPI-Advanced Institute for Materials Research, Tohoku University, Japan
[2]Graduate School of Information Science and Technology, Hokkaido University, Japan
[3]IFS, Tohoku University, Japan
[4]NAIST, Japan
[5]JST-CREST, Japan

09:45 **TNa2.3:** FABRICATION AND CHARACTERIZATION OF MICRORING RESONATORS IN TITANIUM DIFFUSED LITHIUM NIOBATE
Siew Shawn Yohanes, Deng Jun, Soham Sataparno Saha, Sajid Hussain, Mankei Tsang, Aaron J. Danner
National University of Singapore, Singapore

10:00 **TNa2.4:** DIRECT IMAGING OF NANOPHOTONIC CAVITY MODES USING Li ION MICROSCOPE
Jie Zou[1,2], Kevin A. Twedt[1,2], Marcelo Davanco[2], Kartik Srinivasan[2], Jabez McClelland[2], Vladimir A. Aksyuk[2]
[1]University of Maryland, USA
[2]Center for Nanoscale Science and Technology, NIST, USA

10:15 **TNa2.5:** DESIGN OF A NEAR-INFRARED SURFACE-EMITTING METALLIC NANOCAVITY WITH MULTIPLE QUANTUM WELL
Bo-Tsun Chou, Sheng-Di Lin
National Chiao Tung University, Taiwan

10:30 Coffee Break

**TOp4: Photonic MEMS II**
**Session Chair:** David Dickensheets, Montana State University, USA

11:00 **TOp4.1:** INVITED TALK:
PHOTONIC SENSORS AND DEVICES BASED ON HOLLOW-CORE PHOTONIC BANDGAP FIBRES
Professor Wei Jin
Hong Kong Polytechnic University, China

11:30 **TOp4.2:** METAMATERIAL NEMS: GIANT OPTICAL NONLINEARITY AND MAGNETOELECTRIC EFFECT
João Valente[1], Jun-Yu Ou[1], Eric Plum[1], Kevin F. Mac Donald[1], Nikolay Zheludev[1,2]
[1]Optoelectronics Research Centre and Centre for Photonic Metamaterials, University of Southampton, UK
[2]Centre for Disruptive Photonic Technologies, Nanyang Technological University, Singapore

11:45 **TOp4.3:** SELF-LOCKING OPTOELECTRONIC TWEEZERS FOR MICRO-PARTICLE MANIPULATION
Yajia Yang, Yufei Mao, Chi On Chui, Pei-Yu Eric Chiou
University of California, Los Angeles, USA

12:00 **TOp4.4:** FABRY-PEROT RESONATORS BASED ON PHOTONIC CRYSTAL MIRRORS WITH STRONG GRADIENTS OF REFLECTED PHASE
Antonio Gellineau, Yu-Po Wong, Olav Solgaard
Stanford University, USA

12:15 **TOp4.5:** HIGH INTENSITY PLASMON ENHANCED PHOTOACOUSTIC GENERATION FROM POLYMERIC ABSORBER WITH 3D PLASMONIC NANOSTRUCTURES
Seung-Bum Yang, Young-Jae Oh, Ki-hun Jeong
Korea Advanced Institute of Science and Technology (KAIST), Korea

12:30 Lunch

**TOp5: Attenuators**
**Session Chair:** Frederic Zamkotsian, LAM, Marseille, France

13:30 **TOp5.1:** INVITED TALK:
THE CASIMIR EFFECT BETWEEN MICROMECHANICAL COMPONENTS ON A SILICON CHIP
Professor Ho Bun Chan
Hong Kong University of Science and Technology, China

14:00 **TOp5.2:** ALL-PHOTONIC SU-8 VARIABLE OPTICAL ATTENUATOR
Sandra de Pedro[1], Tobias N. Ackermann[1], Jose A. Plaza[1], Erica Alvarez[1], Stephanus Büttgenbach[2], Victor J. Cadarso[3], Andreu Llobera[1,2]
[1]Institut de Microelectrònica de Barcelona, IMB-CNM (CSIC), Spain
[2]Institut für Mikrotechnik, Technische Universität Braunschweig, Germany
[3]Laboratory for Micro- and Nanotechnology, Paul Scherrer Institut (PSI), Switzerland

14:15 **TOp5.3:** DOUBLE-SIDE-DRIVE ELECTROSTATIC OPTICAL CHOPPER FOR TIME-RESOLVED RAMAN SPECTROSCOPY
Yusuke Kogita, Yoshikazu Hirai, Osamu Tabata, Toshiyuki Tsuchiya
Kyoto University, Japan

14:30 **TOp5.4:** THEORETICAL AND EXPERIMENTAL ANALYSIS OF SIDE-POLISHED FIBER OPTOFLUIDIC VARIABLE ATTENUATOR
Anna Duduś, Robert Blue, Michele Zagnoni, George Stewart, Deepak Uttamchandani
University of Strathclyde, Glasgow, UK

14:45 **TOp5.5:** SOLID-STATE VARIABLE MICRO APERTURE WITH NO MOVING COMPONENT
Bo-Jiun Chen, Cheng-Huan Lyu, Chih-Chieh Chang, Cheng-Hua Tsai, Jui-che Tsai
Graduate Institute of Photonics and Optoelectronics & Department of Electrical Engineering, National Taiwan University, Taiwan

15:00 Excursion – Riverside Museum