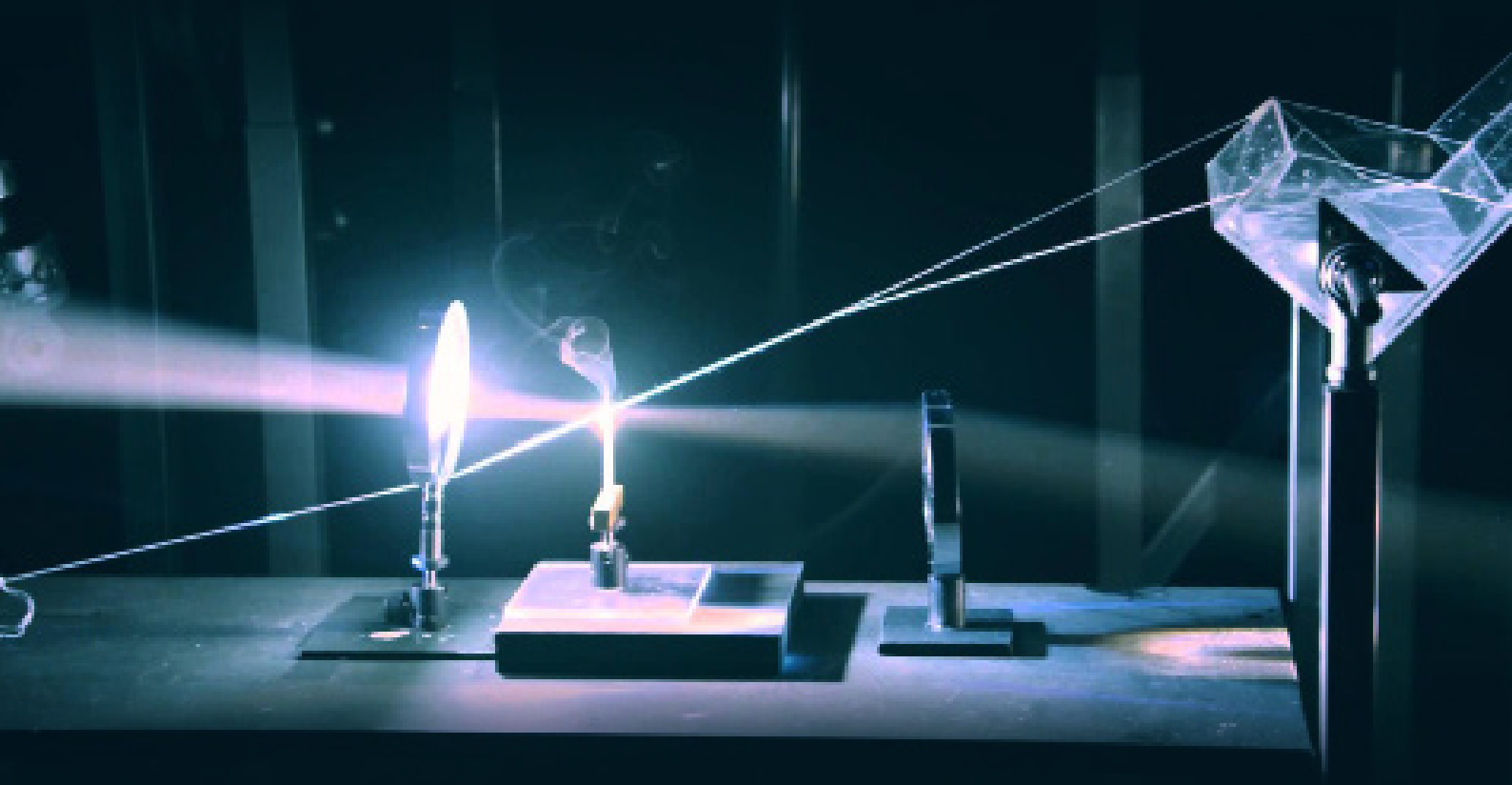
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Scientific Program

5th International Conference and Exhibition on

LASERS, OPTICS AND PHOTONICS

November 28-30, 2016 Atlanta, USA



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Day 1 November 28, 2016

08:00-10:00 Registrations

Chattahoochee-B

conferenceseries.com 08:30-08:50 **Opening Ceremony**

Keynote Forum

08:50-08:55 Introduction

08:55-09:20 **Title: Wide band-gap semiconductor materials with low defect density for future high-power nanophotonics and electronics**
Vladislav E Bougrov, ITMO University, Russia

09:20-09:45 **Title: Dynamics of plasmonic nanolasing: From strong coupling to stopped-light lasing and surface-plasmon polariton condensation**
Ortwin Hess, Imperial College London, UK

09:45-10:10 **Title: Visible from invisible: Second harmonic generation with infrared laser diodes**
G S Sokolovskii, Ioffe Institute, Russia

10:10-10:35 **Title: Plasmonic materials/metamaterials by crystal growth**
Dorota A Pawlak, Institute of Electronic Materials Technology, Poland

Panel Discussion

Group Photo 10:35-10:40

Networking & Refreshment Break 10:40-11:00

Workshop on Understanding Silicon for Optics
by
Douglas R McCarter, McCarter Machine & Technology Inc., USA

Session Introduction

11:00-13:00 **Session I**

Lunch Break 13:00-13:45

13:45-16:00 **Session II**

Networking & Refreshment Break 16:00-16:20

16:20-17:05 **Session III**

Panel Discussion

Young Researchers Forum

Session Introduction

Session Judges:
Masayoshi Tonouchi, Osaka University, Japan
Karim D Mynbaev, ITMO University, Russia

17:05-17:20 **Title: Tandem modulation for W-band OCDMA radio-over-fiber system**
Morad Eghbal, University of Texas, USA

17:20-17:35 **Title: Spectroscopic analysis of calcite and dolomite marble using laser induced breakdown spectroscopy**
S Saleem, COMSATS Institute of Information Technology, Pakistan

17:35-17:50 **Title: Demonstration of local teleportation using classical entanglement**
Marco Ornigotti, Friedrich-Schiller-Universität Jena, Germany

17:50-18:05 **Title: Visualization and tracking of tumor exosomes using single molecule localization based super resolution microscope**
Chen Chen, Southeast University, China

18:05-18:20 **Title: Functionalized carbon nanotubes for monitoring dual-drug release in tumor cells using SERS and fluorescence techniques**
Peng Chen, Southeast University, China

18:20-18:35 **Title: Upconversion Brillouin optical-time domain reflectometry**
Mingjia Shangguan, University of Science and Technology of China, China

18:35-18:50 **Title: Temperature sensitivity enhancement of the gold thin film-coated long-period fiber grating**
Li Jian, Harbin Engineering University, China

Panel Discussion

Day 2 November 29, 2016

Chattahoochee-B

Keynote Forum

08:30-08:55 **Title: Single-mode terahertz lasing in current injection graphene channel transistor**
Taiichi Otsuji, RIEC - Tohoku University, Japan

08:55-09:20 **Title: Optics and photonics research programs funded by the USA National Science Foundation**
Dominique M Dagenais, National Science Foundation, USA

Panel Discussion

09:20-11:00 **Workshop on SHNP - Semiconductor and Hybrid Nanophotonics**

Session Introduction

Session Chair: Vladislav E. Bougrov, ITMO University, Russia
Session Co-Chair: Roberto Morandotti, ITMO University, Russia

09:20-09:40 **Title: Integrated III-V semiconductor components for all-optical analog-to-digital conversion**
Vladislav E Bougrov, ITMO University, Russia

09:40-10:00 **Title: Flexible optoelectronic devices based on inorganic nanowires**
Maria Tchernycheva, Université Paris Sud XI, France

10:00-10:20 **Title: On-chip quantum frequency combs for scalable quantum state generation**
Roberto Morandotti, ITMO University, Russia

10:20-10:40 **Title: Recent progress in III-V and II-VI semiconductor nanostructures for mid-infrared optoelectronics**
Karim D Mynbaev, ITMO University, Russia

10:40-11:00 **Title: Monolithic integration of III-V nanowires with silicon**
Vladimir G Dubrovskii, ITMO University, Russia

Panel Discussion

Networking & Refreshment Break 11:00-11:20

Sessions On
Optics and Lasers in Medicine | Laser Systems

Session Introduction

Session Chair: Mahmoud Fallahi, University of Arizona, USA
Session Co-Chair: Haiyan Fu, South-Central University for Nationalities, China

11:20-11:40 **Title: Prevention of abdominal adhesions and healing skin after peritoniectomy using low level laser**
Mara Duffles, Federal University of Minas Gerais, Brazil

11:40-12:00 **Title: Comparison of the Alendronate and irradiation with a light-emitting diode (LED) on murine osteoclastogenesis**
Won Bong Lim, Chosun University, South Korea

12:00-12:20 **Title: "Turn-off" fluorescent data array sensor based on double quantum dots coupled with chemometrics for highly sensitive and selective detection of multicomponent pesticides**
Haiyan Fu, South-Central University for Nationalities, China

12:20-12:40 **Title: Super wide luminescence and super radiance of $Al_xGa_{1-x}N$ under optical and e-beam pumping**
Peter A Bokhan, A V Rzhanov Institute of Semiconductor Physics, Russia

12:40-13:00 **Title: High-power, high-brightness, tunable two color VECSELs**
Mahmoud Fallahi, University of Arizona, USA

Lunch Break 13:00-13:45

13:45-14:05 **Title: Recent advances in high power optically pumped semiconductor lasers**
Yanbo Bai, Coherent Inc., USA

14:05-14:25 **Title: Optical parametric generation in photonic crystal fibers**
Sigang Yang, Tsinghua University, China

14:25-14:45	**Title: Generation of high power pulses with high repetition rate with subnanosecond pulse front for pumping different lasers** **Peter A Bokhan,** A V Rzhanov Institute of Semiconductor Physics, Russia
	Session Discussion

Sessions On
Applications and Trends in Optics | Quantum Science and Technology

Session Introduction

Session Chair: Luis Gustavo Marcassa, University of São Paulo, Brazil
Session Co-Chair: Zhe Wang, Tsinghua University, China

14:45-15:05	**Title: Detection of diseases in citrus plants using fluorescence spectroscopy** **Luis Gustavo Marcassa,** University of São Paulo, Brazil
15:05-15:25	**Title: Optical phased array propagation in atmospheric channels and coherent beam combining** **Itay Naeh,** Tel Aviv University, Israel
15:25-15:45	**Title: Laser beam shaping by manipulating spatial coherence** **Milo W Hyde IV,** Air Force Institute of Technology, USA
15:45-16:05	**Title: Laser terahertz emission microscope** **Masayoshi Tonouchi,** Osaka University, Japan
	Networking & Refreshment Break 16:05-16:25
16:25-16:45	**Title: LIBS in China and its quantification development laser-induced breakdown spectroscopy** **Zhe Wang,** Tsinghua University, China
16:45-17:05	**Title: High efficient generation of IR beam by SRS of high pressure H_2, D_2 and CH_4** **Jinbo Liu,** Dalian Institute of Chemical Physics - CAS, China
17:05-17:25	**Title: Multiple period states in superfluid Fermi gases in an optical lattice** **Gentaro Watanabe,** Zhejiang University, China
17:25-17:45	**Title: Some communication protocols using entangled quantum states as channels** **Binayak S Choudhury,** Indian Institute of Engineering Science and Technology, India
	Session Discussion

Day 3 November 30, 2016

Chattahoochee-B

Sessions On
Optoelectronics | Optical Communications and Networking

Session Introduction

Session Chair: Ishwara Bhat, Rensselaer Polytechnic Institute, USA
Session Co-Chair: Shiva Kumar, McMaster University, Canada

08:30-08:50	**Title: On-glass/flexible GaN light-emitting diodes and blue light enhancement in CdS/ZnS quantum dots by surface plasmon resonance** **Jun Hee Choi,** Samsung Advanced Institute of Technology, South Korea
08:50-09:10	**Title: Properties of hexagonal boron nitride grown on sapphire and silicon substrates for application in deep UV photonics** **Ishwara Bhat,** Rensselaer Polytechnic Institute, USA
09:10-09:30	**Title: Digital alloy growth of AlInAsSb for low noise avalanche photodetectors** **Seth Bank,** University of Texas, USA
09:30-09:50	**Title: The radio frequency photomultiplier tube and optical frequency comb: High resolution, high rate and highly stable timing technique for single photons** **Amur Margaryan,** Yerevan Physics Institute, Armenia
09:50-10:10	**Title: Light assisted low temperature sintering for the high-performance flexible dye-sensitized and perovskite solar cells** **Min Jae Ko,** Korea Institute of Science and Technology, Republic of Korea
10:10-10:30	**Title: Optical back propagation for mitigation of linear and nonlinear impairments in optical networks** **Shiva Kumar,** McMaster University, Canada

10:30-10:50	**Title: Stabilizing Raman crosstalk in massive WDM transmission networks by frequency dependent gain and loss** **Avner Peleg,** Afeka College of Engineering, Israel

Session Discussion

Networking & Refreshment Break 10:50-11:10

Sessions On
Nanophotonics and Biophotonics | Optical Physics | Surface Enhanced Spectroscopy (SES)

Session Introduction

Session Chair: P Boolchand, University of Cincinnati, USA

Session Co-Chair: Shu-Wei Huang, University of California, USA

11:10-11:30	**Title: Numerical simulation of Raman scattering in biological tissues** **A Seteikin,** Amur State University, Russia
11:30-11:50	**Title: Surface enhanced optical processes and regularities of their spectra in symmetrical molecules** **A M Polubotko,** Ioffe Institute, Russia
11:50-12:10	**Title: Crystal growth-based methods used for manufacturing volumetric novel photonic materials as plasmonic nanomaterials and metamaterials** **Dorota A Pawlak,** Institute of Electronic Materials Technology, Poland
12:10-12:30	**Title: Flat and conformal optics with dielectric metasurfaces** **Amir Arbabi,** California Institute of Technology, USA
12:30-12:50	**Title: A new paradigm: Metamaterial and upconversion effects in natural materials** **Michelle R Stem,** Complete Consulting Services, LLC, USA

Lunch Break 12:50-13:35

13:35-13:55	**Title: Chip-scale optical frequency combs: Advances in precision metrology** **Shu-Wei Huang,** University of California, USA
13:55-14:15	**Title: Experimental challenges in observation of topological phases in chalcogenide and modified oxide glasses and amorphous materials** **P Boolchand,** University of Cincinnati, USA
14:15-14:35	**Title: Producing, characterizing and modeling nanostructured surfaces with complex visual** **Renee Charriere,** National Institute of Standards and Technology, USA
14:35-14:55	**Title: Pulsed-laser Raman scattering for measurement of junction temperature of white-LED** **Yukihiko Yamagata,** Kyushu University, Japan
14:55-15:15	**Title: Laser frequency locking with 46 GHz offset by using an electro-optic modulator for magneto-optical trapping of francium atoms** **Ken-ichi Harada,** Tohoku University, Japan
15:15-15:35	**Title: Optical properties of 3C–SiC/Si (001) defect microstructures by exploiting Raman scattering and X-ray absorption fine structure measurements** **Devki N Talwar,** Indiana University of Pennsylvania, USA
15:35-15:55	**Title: Mitigating transmitter non-linearity and fiber impairments in radio over fiber technology** **Dhananjay Manohar Patel,** Sardar Vallabhbhai National Institute of Technology, India

Session Discussion

Networking & Refreshment Break 15:55-16:15

Poster Presentations 16:15-17:15

OP1	**Title: A new chipset for generating computer-generated hologram** **Young-Ho Seo,** Kwangwoon University, South Korea
OP2	**Title: Electron localizations in binary InAs/GaAs quantum systems and their optical detection** **I Filikhin,** North Carolina Central University, USA
OP3	**Title: Inexpensive method for wafer size laser scribing of arbitrary patterns** **Goran Rasic,** North Carolina Central University, USA

Video Ptresentation

16:35-16:55	**Title: Incapability of laser drilling affected by interfacial transport processes across the induced keyhole** **Peng-Sheng Wei,** National Sun Yat-Sen University, Taiwan (ROC)

Awards and Closing Ceremony 17:15-17:20