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2nd Global Summit & Expo on

Laser Optics & Photonics

June 14-16, 2018 at Rome, Italy



Media Partners



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Venue: Holiday Inn Rome - Eur Parco Dei Medici, Rome

Day 1 June 14, 2018

Ovidio

- 08:30-09:30 Registrations
09:30-09:35 Introduction
09:35-10:00 Opening Ceremony

Plenary Forum

- 10:00-10:45 **Title: 2018: 62 years of the Hanbury-Brown Twiss experiment: from the determination of star diameters via the foundations of quantum optics to ghost imaging**
Wolfgang Elsaesser, Technische Universität Darmstadt, Germany
- 10:45-11:30 **Title: Latest Developments in Photonics from Industry Perspective**
Jose Pozo, EPIC (European Photonics Industry Consortium)

Networking & Refreshments Break 11:30-11:45 @ Foyer

Keynote Forum

- 11:45-12:25 **Title: Nanostructures for Flying q-bits and Green Photonics**
Dieter Bimberg, Technical University Berlin, Germany
- 12:25-13:05 **Title: Reflectin Proteins: A Molecular Machine Controlling Dynamically Tunable Color**
Daniel E. Morse, University of California, USA

Group Photo

Lunch Break 13:05-14:00 @ La Serra Restaurant

- 14:00-14:40 **Title: Electrically-Fed Optical Antennas for Light Emitting Devices**
Claire Deeb, CNRS, Centre de Nanosciences et de Nanotechnologies, France
- 14:40-15:20 **Title: Laser ablation for carbon-based thin films and graphene synthesis**
Florence Garrelie, University of Lyon, France

Workshop

Chair: Igor K. Meshkovskiy, ITMO University, Russia

- 15:20-15:40 **Title: Photon separation of the molecules**
Igor K. Meshkovskiy, ITMO University, Russia
- 15:40-16:00 **Title: Precision interferometric fiber-optic sensors based on VCSEL with direct current modulation**
Kulikov V. Andrei, ITMO University, Russia
- 16:00-16:20 **Title: Fiber optic source for the fiber optic sensors**
Artem Aleynik, St. Petersburg National Research University of Information Technologies, Russia

Networking & Refreshments Break 16:20-16:35 @ Foyer

Scientific Sessions

Session Chair: Maurizio Casalino, Institute for Microelectronics and Microsystems (IMM) of the National Council of Research (CNR), Italy

Session Co-Chair: Lei Shi, Tongji University School of Medicine, China

- 16:35-16:55 **Title: Silicon photodetectors operating at 1.55 μm and 2 μm using graphene**
Maurizio Casalino, Institute for Microelectronics and Microsystems (IMM) of the National Council of Research (CNR), Italy
- 16:55-17:15 **Title: Laser immunotherapy for cutaneous squamous cell carcinoma with optimal thermal effects**
Lei Shi, Tongji University School of Medicine, China
- 17:15-17:35 **Title: Optical fiber methods for deep brain calcium signal measurements in behaving mice**
Ling Fu, Huazhong University of Science and Technology, China
- 17:35-17:55 **Title: Bayesian-based compensation method of mismodeling of tissue optical properties**
Yong Deng, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology, China
- 17:55-18:15 **Title: In vivo visualization of tumor-specific immune elimination elicited by fluorescent protein model antigen**
Zhihong Zhang, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology, China

18:15-18:35 **Title: Terahertz opto-electronic phenomena in graphene and topological insulators**
Sergey D Ganichev, University of Regensburg, Germany

18:35-18:55 **Title: Improved SWIR photo-detection via sub-wavelength structuration**
Jean-Luc Pelouard, Université Paris-Saclay, France

19:00-20:00 Cocktails @ Poolside

Day 2 June 15, 2018

Ovidio

Keynote Forum

10:00-10:40 **Title: Novel Design of 1 × 4 Photonic intensity splitter Based on Multi Silicon Slot-Waveguide Structures**

Dror Malka, Holon Institute of Technology, Israel

10:40-11:20 **Title: Optical and electrical properties of SilnZnO amorphous oxides multilayers for low emissivity applications**

Sang Yeol Lee, Cheongju University, Korea

Networking & Refreshments Break 11:20-11:35 @ Foyer

11:35-12:15 **Title: Quo Vadis - Industrial Scale High Precision 3D Printing**

Ruth Houbertz, Multiphoton Optics GmbH, Germany

12:15-12:55 **Title: Graphene-based 2D heterostructure materials for terahertz photonics and plasmonics light-sources applications**

Taiichi Otsuji, Tohoku University, Japan

Lunch Break 12:55-13:55 @ La Serra Restaurant

Work Shop on Novel techniques in TeraHertz imaging, spectroscopy and sensing

Chair: Pengda Hong, Lehigh University, USA

13:55-14:15 **Title: Plasmonic Nanosensors for THz Applications**

Michael S. Shur, Rensselaer Polytechnic Institute, USA

14:15-14:35 **Title: Bringing THz technology to the industrial mainstream: application to the paper and automotive industry**

Dook vanMechelen, ABB Switzerland Ltd, Switzerland

14:35-14:55 **Title: Infrared Maritime Target Detection**

Ming Zhao, Dalian Maritime University, China

Scientific Sessions

Session Chair: Valerie Brien, CNRS – Université de Lorraine, France

Session Co-Chair: Marek Tulej, Bern University, Switzerland

14:55-15:15 **Title: Luminescence, cristallochemistry and electronic structure of solid solution AINOEr**

Valerie Brien, CNRS – Université de Lorraine, France

15:15-15:35 **Title: Chemical composition of the micro-sized solids by laser ablation/ionization mass spectrometry: searching for bio-relevant materials on the Earth and beyond**

Marek Tulej, Bern University, Switzerland

15:35-15:55 **Title: Silicon Photomultiplier - Novel Photon Detection Technology for Critical Applications**

Valeri Saveliev, Huazhong University of Science and Technology, China

Networking & Refreshments Break 15:55-16:10 @ Foyer

16:10-16:30 **Title: Energy transfer interactions between semiconductor nanocrystals and TMD materials**

Anton Malko, The University of Texas at Dallas, USA

16:30-16:50 **Title: Modelling Laser Light Propagation in Thermoplastics Using Monte Carlo Simulations**

Philip J Bates, Royal Military College of Canada, Canada

16:50-17:10 **Title: Simulation studies: Spectral phase shift of surface plasmon resonance caused by azimuthal angles in BEOL CMP structures**

Yao-Chung Tsao, Nanometrics Inc, Japan

17:10-17:30 **Title: In-vivo 3D human skin imaging using crystalline fiber based optical coherence tomography**

Sheng-Lung Huang, National Taiwan University, Taiwan

17:30-17:50 **Title: Dynamic and real-time study of the human lens optical and morphological properties during accommodation**

Sandra Franco, University of Minho, Portugal

17:50-18:10 **Title: Soliton molecules for a novel optical telecommunications format**

Fedor Mitschke, Universität Rostock, Germany

18:10-18:30 **Title: Photoimmunotherapy for cancer treatment**
Wei Chen, University of Central Oklahoma, USA

18:30-19:30 Workshop on INTEGRATED PHOTONICS FOR SENSING

Chair: Sergio Nicoletti, Optical Sensor Devices Group, France

Title: QCL based photoacoustic gas sensor on Si : results and perspectives
Jean-Guillaume Coutard, CEA-LETI, France

Title: III-V on silicon mid-IR photonic integrated circuits

Ruijun Wang, Ghent University-IMEC, Belgium

Title: Si-based PICs for sensing : Devices and Applications

Jean-Marc FEDELI, PICs technologies

Pierre Labeye, Grenoble Alpes, France

Title: Real time sensing using MEMS tunable EC-QCL

Ralf Ostendorf, Integrated technologies

Marko Härtelt, Fraunhofer Institute for Applied Solid State Physics Freiburg, Germany

Title: On-chip optomechanical sensing technologies

Pierre Allain, Université Paris Diderot, France

Poster Presentations

- P-001** **Title: InGaAs/GaAs/AlGaAs Quantum Well Multiple Wavelength Laser Diode Chips**
Tang Xiaohong, Nanyang Technological University, Singapore
- P-002** **Title: Optical resonance soliton in monolayer black phosphorus**
Guram Adamashvili, Technical University of Georgia, Georgia
- P-003** **Title: Failure of Drilling with a Laser**
Peng-Sheng Wei, National Sun Yat-Sen University, Taiwan
- P-004** **Title: All-optical single sideband frequency up-converter based on XPM effect in an SOA-MZI for WDM-MMoF application**
Joo-Young Lee, Jong-In Song, Gwang-ju Institute of Science and Technology, Korea
- P-005** **Title: Use of elliptical kernels in vortex metrology**
Hector Jorge Rabal, Centro de Investigaciones Opticas, Argentina
- P-006** **Title: Metamorphic InAs/InGaAs Quantum Dots Photoresponsive in the 1.3–1.55 μm Window**
Golovynskyi Serhii, College of Optoelectronic Engineering, China
- P-007** **Title: Compact optoelectronic system for real-time holographic projection with data compression**
Paula A. Kochanska, Warsaw University of Technology, Poland
- P-008** **Title: Differential Digital Holography of Distant Objects With the Use of Fiber Optics**
Maciej Neneman, Politechnika Warszawska, Poland

Day 3 June 16, 2018

Ovidio

Keynote Forum

- 10:00-10:40** **Title: Nonlinear optics in tightly-confined low-loss waveguides**
Sunao Kurimura, National Institute for Materials Science, Japan
- 10:40-11:20** **Title: Probabilistic Design for Reliability for Aerospace Optics: Role, Significance, Attributes, Challenges**
Ephraim Suhir, Portland State University, USA

Networking & Refreshments Break 11:20-11:35 @ Foyer

- 11:35-12:15** **Title: Optical Techniques for 5G Wireless Networks**
Xavier Fernando, Ryerson University, Canada
- 12:15-12:55** **Title: History and future perspectives of the nitride semiconductors**
Takashi Matsuoka, Tohoku University, Japan

Lunch Break 12:55-13:55 @ La Serra Restaurant

Scientific Sessions

Session Chair: Shixiang Xu, Shenzhen University, China

Session Co-Chair: Alexey Akimov, Russian Quantum Center, Russian Federation

- 13:55-14:15** **Title: Electro-optic detection for intense terahertz pulses**
Shixiang Xu, Shenzhen University, China
- 14:15-14:35** **Title: Quantum optics with GeV color center in diamond**
Alexey Akimov, Russian Quantum Center, Russian Federation

- 14:35-14:55** **Title: Nonlinear optical responses from native and modified human low-density lipoproteins: a new tool to face atherosclerosis**
Antonio M. Figueiredo Neto, University of Sao Paulo, Brazil
- 14:55-15:15** **Title: Photoactivation of Mitochondria Activity by High Fluence Low-Power Laser Irradiation**
Kulikov V. Andrei, ITMO University, Russia
- 15:15-15:35** **Title: Study of the angular momentum of light from plasmonic crystals**
H. C. ONG, The Chinese University of Hong Kong, Hong Kong
- 15:35-15:55** **Title: Novel optical system combined with computer vision for forensic**
Handelman Amir, Holon Institute of Technology, Israel

Networking & Refreshments Break 15:55-16:10 @ Foyer

- 16:10-16:30** **Title: Optical properties of fishnet meta material embedded in dielectric medium or coatings**
Guohang Hu, Shanghai Institute of Optics and Fine Mechanics, China
- 16:30-16:50** **Title: Prediction of the junction temperature and spectral power distribution of high-energy laser diode arrays**
Bongtae Han, University of Maryland, USA
- 16:50-17:10** **Title: Nanostructured Silicon nitride Films : Optical emission and photo conductivity**
Santanu Ghosh, Indian Institute of Technology Delhi, India
- 17:10-17:30** **Title: PIX4life: Photonic Integration Pilot Line for Life Sciences**
Adil Masood, IMEC, Belgium
- 17:30-17:50** **Title: 1D and 2D scanning functions of laser scanners for high-end applications**
Virgil-Florin Duma, Aurel Vlaicu University of Arad, Romania

Certificate Felicitation @ Closing Ceremony

Bookmark Your Dates

4th Global Summit & Expo on

Laser Optics & Photonics

April 15-17, 2019 Dubai, UAE