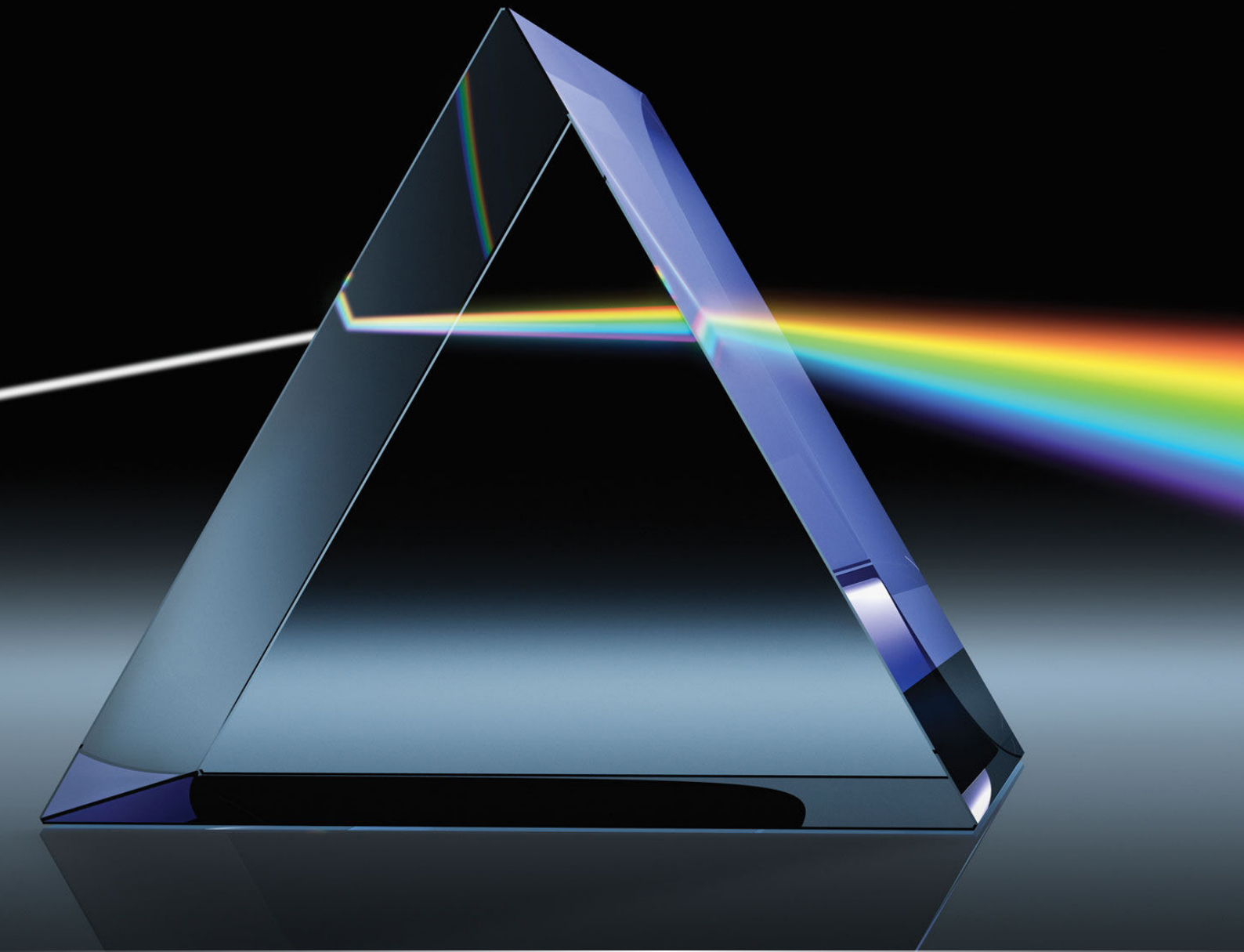


# Scientific Program

3<sup>rd</sup> International Conference and Exhibition on

# Lasers, Optics and Photonics

September 01-03, 2015 Valencia, Spain



**Conference Series LLC Ltd**

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# Scientific Program

Day 1

September 01, 2015

7:30-8:30

Registrations

Valentia B

conferenceseries LLC Ltd 8:30-8:55

## Opening Ceremony

### Keynote Forum

08:55-09:00 **Introduction**

09:00-09:25 **Manijeh Razeghi**, Northwestern University, USA

09:25-09:50 **Anthony Krier**, Lancaster University, UK

09:50-10:15 **Michael A Fiddy**, University of North Carolina (Charlotte), USA

10:15-10:40 **John Michael Dallesasse**, University of Illinois, USA

Coffee Break 10:40-11:00 @ Foyer

Track 1: Advanced Science and Technology for Laser Systems

Session Chair: Anthony Krier, Lancaster University, UK

Session Co-Chair: Joachim Wagner, Fraunhofer Institute for Applied Solid State Physics (IAF), Germany

Session Introduction

11:00-11:20	<b>Title: Optical feedback interferometry in quantum cascade lasers</b>
	<b>Gaetano Scamarcio</b> , Università degli Studi di Bari "Aldo Moro", Italy
11:20-11:40	<b>Title: Influence of the InAs/GaSb super lattice period composition on the electro-optical performances of T2SL infrared photodiode</b>
	<b>Philippe Christol</b> , University of Montpellier, France
11:40-12:00	<b>Title: Recent advances in widely tunable quantum cascade lasers and their use in spectroscopic sensing</b>
	<b>Joachim Wagner</b> , Fraunhofer Institute for Applied Solid State Physics (IAF), Germany
12:00-12:20	<b>Title: Coherency for a better detection</b>
	<b>Besnard Pascal</b> , University of Rennes 1, France
12:20-12:40	<b>Title: Linear-cavity fiber lasers investigation and application</b>
	<b>Shien-Kuei Liaw</b> , National Taiwan University of Science and Technology, Taiwan
12:40-13:00	<b>Title: 16 <math>\mu\text{m}</math> InP-related quantum cascade laser</b>
	<b>Anna Szerling</b> , Institute of Electron Technology, Poland
Group Photo & Lunch Break 13:00-13:45 @ Aqua Restaurant	
13:45-14:05	<b>Title: Photonic engineering and micro-cavity tuning of THz quantum cascade laser resonators</b>
	<b>Miriam S Vitiello</b> , NEST, CNR -Istituto Nanoscienze and Scuola Normale Superiore, Italy
14:05-14:25	<b>Title: In-situ study on optical properties and continuous laser tuning in cholesteric liquid crystal laser array</b>
	<b>Mi-Yun Jeong</b> , Gyeongsang National University, Korea
14:25-14:35	<b>Title: Type-II quantum wells for InP-based surface and edge emitting lasers</b>
	<b>Stephan Sprengel</b> , Technische Universitaet Muenchen, Germany



**Track 5: Advancements in Photonics****Session Chair: Dan Botez**, University of Wisconsin, USA**Session Co-Chair: Weidong Chen**, Université du Littoral Côte d'Opale, France

Session Introduction

<b>14:35-14:55</b>	<b>Title: BaTiO<sub>3</sub> Photonic crystal electro-optic devices for 50 GHz applications</b> <b>Bruce Wessels</b> , Northwestern University, USA
<b>14:55-15:15</b>	<b>Title: High-index-contrast photonic-crystal quantum cascade lasers: Watt-range coherent mid-infrared power sources</b> <b>Dan Botez</b> , University of Wisconsin, USA
<b>15:15-15:35</b>	<b>Title: Advanced photonic technologies for atmospheric measurements</b> <b>Weidong Chen</b> , Université du Littoral Côte d'Opale, France

Coffee Break 15:35-15:55 @ Foyer

<b>15:55-16:15</b>	<b>Title: Frequency doubling in AlGaAs microdisks at 1.55 μm</b> <b>Giuseppe Leo</b> , University Paris Diderot, France
<b>16:15-16:35</b>	<b>Title: Can OLED light-quality be good enough to justify lighting renaissance?</b> <b>Jwo-Huei Jou</b> , National Tsing Hua University, Taiwan
<b>16:35-16:55</b>	<b>Keynote Talk</b> <b>Nasser Peyghambarian</b> , University of Arizona, USA
<b>16:55-17:15</b>	<b>Title: Photon management assisted by surface waves on an all-dielectric platform</b> <b>Angelo Angelini</b> , Polytechnic of Turin, Italy

Panel Discussion

**Day 2      September 02, 2015****Valentia B****Track 3: Optoelectronics****Session Chair: Michael A Fiddy**, University of North Carolina (Charlotte), USA**Session Co-Chair: Nicholas Kioussis**, California State University Northridge, USA

Session Introduction

<b>09:00-09:20</b>	<b>Title: Low index optical materials</b> <b>Michael A Fiddy</b> , University of North Carolina (Charlotte), USA
<b>09:20-09:40</b>	<b>Title: Identification of point defect candidates in strained-layer type-II super lattices for infrared detectors: <i>Ab initio</i> electronic structure studies</b> <b>Nicholas Kioussis</b> , California State University Northridge, USA
<b>09:40-10:00</b>	<b>Title: InP-based antimony-free lasers and photodetectors in 2-3 μm band</b> <b>Zhang Yong-Gang</b> , Chinese Academy of Sciences, China
<b>10:00-10:20</b>	<b>Title: Telluride glass fibers for mid-infrared sensing: From medical diagnosis to the detection of exo-planet</b> <b>Bruno Bureau</b> , Université de Rennes 1, France

10:20-10:40	<b>Title: Optical design and analysis of inorganic and organic nano/microscale structures for light harvesting and sensing applications</b>
	<b>Jae Su Yu</b> , Kyung Hee University, Republic of Korea
Coffee Break 10:40-11:00 @ Foyer	
11:00-11:20	<b>Title: Unconventional thiophene materials for optoelectronics</b>
	<b>Ewa Schab-Balcerzak</b> , University of Silesia, Poland
11:20-11:40	<b>Title: ZnO-based plasmonics</b>
	<b>Sergey Sadofev</b> , Humboldt-Universität zu Berlin, Germany
11:40-12:00	<b>Title: Optical fibre chemical sensors: Bio-medical application</b>
	<b>Sergiy Korposh</b> , The University of Nottingham, UK
Track 4: Optical Communications and Networking Track 7: Quantum Science and Technology Track 9: Applications and Trends in Optics and Photonics	
<b>Session Chair: Dan Sporea</b> , National Institute for Laser, Plasma and Radiation Physics, Romania	
Session Introduction	
12:00-12:20	<b>Title: Ionizing radiation dosimetry with optical fibers</b>
	<b>Dan Sporea</b> , National Institute for Laser, Plasma and Radiation Physics, Romania
12:20-12:40	<b>Title: Photonics technologies for 100 Gbps wireless communications</b>
	<b>Juan Sebastián Rodríguez Páez</b> , Technical University of Denmark, Denmark
12:40-13:00	<b>Title: Polybinary modulation for bandwidth limited optical links</b>
	<b>J J Vegas Olmos</b> , Technical University of Denmark, Denmark
Lunch Break 13:00-13:45 @ Aqua Restaurant	
13:45-14:05	<b>Title: Málaga statistical distribution: The new universal analytical propagation model for atmospheric optical communications</b>
	<b>Antonio Jurado-Navas</b> , University of Malaga, Spain
14:05-14:25	<b>Title: A transmission of Ethernet signals via VLC link based on using LEDs in a double role</b>
	<b>Marcin Kowalczyk</b> , Warsaw University of Technology, Poland
14:25-14:45	<b>Title: Nonlinear pulse dynamics in passive and active optical fibers</b>
	<b>Mousumi Basu</b> , Indian Institute of Engineering Science & Technology, India
14:45-15:05	<b>Title: QEPAS- New developments in quartz enhanced photoacoustic gas sensing</b>
	<b>Vincenzo Spagnolo</b> , Università e Politecnico di Bari, Italy
Coffee Break 15:05-15:25 @ Foyer	
15:25-15:45	<b>Title: Single Mode Interband Cascade Lasers</b>
	<b>Sven Höfling</b> , Universität Würzburg, Germany
15:45-16:05	<b>Title: Observation the exciton and Urbach band tail in low-temperature-grown GaAs using coherent ultrafast spectroscopy</b>
	<b>Kimberley C Hall</b> , Dalhousie University, Canada



16:05-16:25	<b>Title: Optical applications of single crystals and transparent ceramics fabricated by high pressure process</b>
	<b>Mythili Prakasam</b> , Institut de Chimie de la Matière Condensée de Bordeaux (ICMCB), France
16:25-16:35	<b>Title: Generation of triangular optical pulses through a normally dispersive highly nonlinear fiber</b>
	<b>Debasruti Chowdhury</b> , Indian Institute of Engineering Science & Technology, India
16:35-16:45	<b>Title: Shipbuilding application of laser equipment and technologies</b>
	<b>Nikolay A Nosyrev</b> , JSC Shipbuilding and Shiprepair Technology Center, Russia

### Poster Session 17:05-17:35 @ Foyer

OP-001	<b>Title: Testing of ZnSe, CaF<sub>2</sub>, BaF<sub>2</sub>, and sapphire windows under alpha particles irradiation</b>
	<b>Dan Sporea</b> , National Institute for Laser, Plasma and Radiation Physics, Romania
OP-002	<b>Title: Semiconductor-integrated-Fiber-Bragg-Gratings for multi-parameter network sensing</b>
	<b>Shien-Kuei Liaw</b> , National Taiwan University of Science and Technology, Taiwan
OP-003	<b>Title: Integration of metal nano-particles in organic waveguides</b>
	<b>Mattia Signoretto</b> , University of Valencia, Spain
OP-004	<b>Title: 10 GHz orthogonally polarized dual frequency VECSEL at 1550 nm</b>
	<b>Lea Chaccour</b> , IFSTTAR, France
OP-005	<b>Title: Photonic-assisted systems for the generation, modulation and measurement of microwave signals</b>
	<b>Danqi Feng</b> , Huazhong University of Science and Technology, China
OP-006	<b>Title: Simultaneous experimental observation of the quantization and interference of a nano-confined plasmonic near-field</b>
	<b>Aziz N Mina</b> , Beni-Suef University, Egypt

### Panel Discussion

**Day 3      September 03, 2015**

### Valentia B

Track 2: Optics and Lasers in Medicine

Track 6: Nanophotonics and Biophotonics

Track 8: Featured Technologies in Lasers, Optics and Photonics

**Session Chair: Ching-Fuh Lin**, National Taiwan University, Taiwan

**Session Co-Chair: Edik U Rafailov**, Aston University, UK

### Session Introduction

09:00-09:20	<b>Title: Organic bio-electronic sensors for ultra-sensitive chiral differential detection</b>
	<b>Luisa Torsi</b> , Università degli Studi di Bari "Aldo Moro", Italy
09:20-09:40	<b>Title: Environmentally affordable fluorescent nanotechnology for efficient lighting</b>
	<b>Ching-Fuh Lin</b> , National Taiwan University, Taiwan
09:40-10:00	<b>Title: Sub-wavelength optical propagation in passive and active 1D-nanostructures</b>
	<b>Nolwenn Huby</b> , University of Rennes 1, France

10:00-10:20	<b>Title: Growth of semiconductor nanoparticles in polymer matrices by nanosecond laser</b> <b>Damian C Onwudiwe</b> , North-West University (Mafikeng Campus), South Africa
10:20-10:40	<b>Title: Novel compact laser sources for biomedical photonics: Diagnostics and treatment</b> <b>Edik U Rafailov</b> , Aston University, UK
Coffee Break 10:40-11:00 @ Foyer	
11:00-11:20	<b>Title: Advanced fiber grating devices fabricated for all-optical signal processing</b> <b>Xuewen Shu</b> , Huazhong University of Science and Technology, China
11:20-11:40	<b>Title: Optics on nano-structured surfaces</b> <b>Valerio Pruneri</b> , The Institute of Photonic Sciences, Spain
11:40-12:00	<b>Title: Transport at spin-orbit and exchange-split interfaces: Giant universal asymmetry</b> <b>Drouhin Henri-Jean</b> , University Paris Saclay, France
12:00-12:20	<b>Title: Ultra high resolution spectroscopy and ultra-fast THz measurements using coherent synchrotron radiation</b> <b>Pascale Roy</b> , Synchrotron SOLEIL, France
12:20-12:40	<b>Title: Dye-sensitized solar cells using ethynyl-linked porphyrin trimers for NIR photoelectric conversion</b> <b>Tomofumi Hamamura</b> , University of Bordeaux, France
12:40-12:50	<b>Title: Polarization-tuned dynamic color filters exploiting a dielectric-loaded one dimensional aluminum grating</b> <b>Vivek Raj Shrestha</b> , Kwangwoon University, South Korea
12:50-13:00	<b>Title: Fabrication of homogenous microstructures by femtosecond laser micromachining</b> <b>K M Tanvir Ahmmed</b> , McGill University, Canada
Lunch Break 13:00-13:45 @ Aqua Restaurant	
Panel Discussion	
Best Poster Award	
Closing Ceremony	

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**4<sup>th</sup> International Conference and Exhibition on**

# **Lasers, Optics and Photonics**

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