

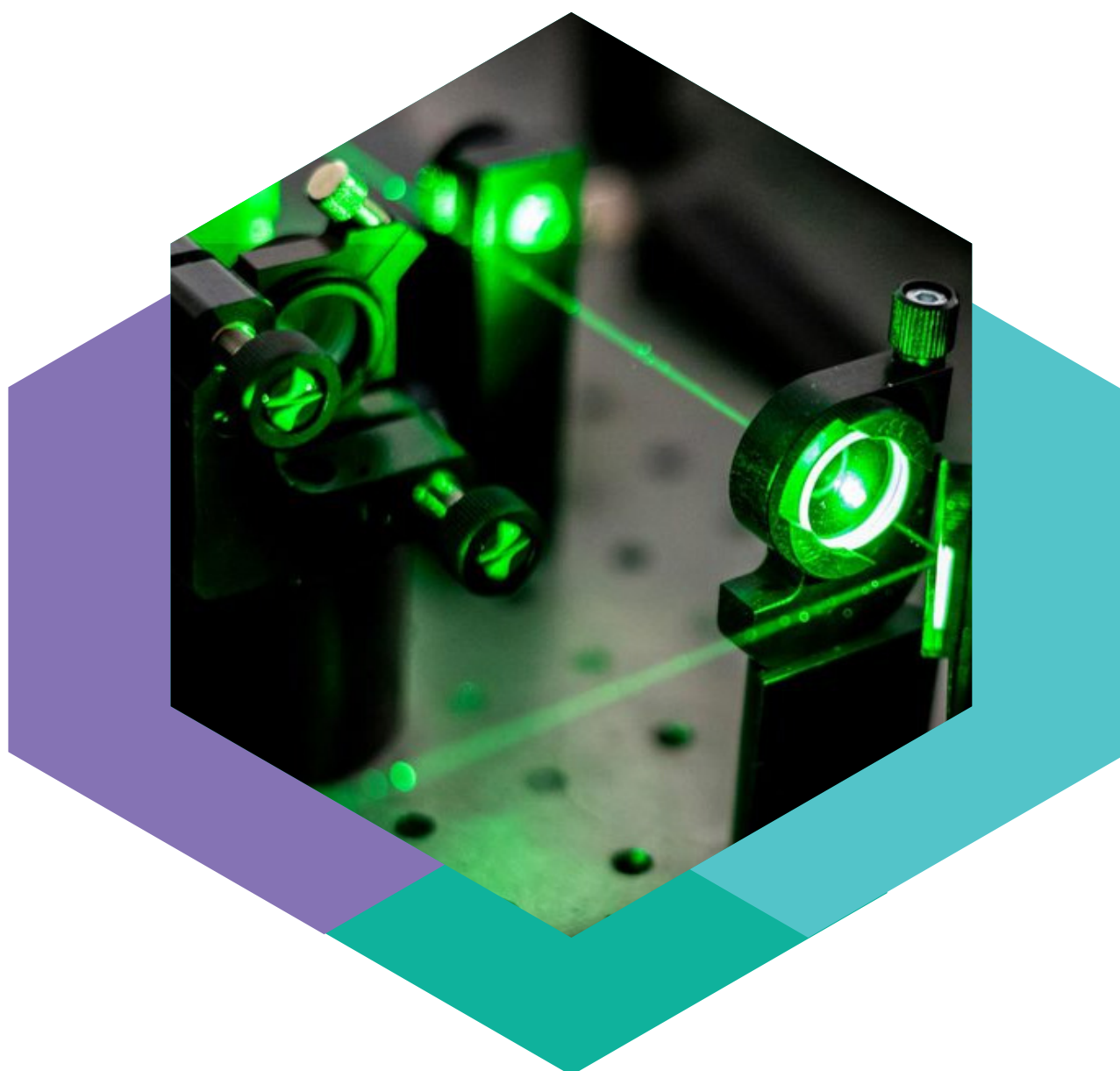


**Final Program**

# OPTICS-2022

**April 21-23, 2022 | Porto, Portugal**

**Holiday Inn Porto - Gaia, Porto, Portugal, Hybrid Conference**



**CONTINUUM FORUMS**

56, North Market Road,  
Ranchi Jharkhand-834001, India  
Email: [event@continuumforums.com](mailto:event@continuumforums.com)

## Day 1 | April - 21, 2022

### Main Hall

**08:00 - 09:00**      **On Spot Registrations**

**09:00-09:15**      **Introduction & Opening Speech**

**Honorary Speech by Chair: Prof. Roberto Morandotti, INRS-EMT, Canada**

### Plenary Session

**09:15-09:55**

**P**

Title: Novel VCSEL Designs for Next Generations of Photonic Systems

**Dieter Bimberg**, "Bimberg Chinese-German Center for Green Photonics" CIOMP of CAS China and Center for NanoPhotonics TU Berlin, Germany

**09:55-10:35**

**P**

Title: Integrated and Fiber-Based Components for Affordable and Scalable Quantum Technologies

**Roberto Morandotti**, INRS-EMT, Canada

**10:35-11:15**

**P**

Title: Optics in the Fixed Network Evolution

**Jinlong Wei**, Huawei Technologies Düsseldorf GmbH, European Research Center, Germany

**11:15-11:30**

**Coffee Break**

### Keynote Session

**11:30-12:00**

**K**

Title: Bio-Hybrid Photoactive Interfaces for Optical Modulation of Living Cell Fate

**Maria Rosa Antognazza**, Italian Institute of Technology, Italy

**12:00-12:30**

**K**

Title: Controllable Giant GHz-THz Nonlinearities in Superlattices

**Mauro Fernandes Pereira**, Khalifa University of Science and Technology, UAE

**12:30-13:00**

**K**

Title: Femtosecond Laser Technology in Biomedicine

**Karsten Koenig**, Saarland University, Germany

**13:00-13:10**

**Group photo**

**13:10-14:00**

**Lunch Break**

Invited Session		
Session:01	Biomedical Optics   Nonlinear Optics   Optical Computing   Optical Fiber Technology   Biophotonics and Microwave Photonics	
14:00-14:25	I	<p>Title: Compressive Sensing Studies on Digital Holographic Microtomography of Isolated Microfibers</p> <p><b>Elsa Fonseca</b>, University of Beira Interior, Portugal</p>
14:25-14:50	I	<p>Title: Ray-Wave Dual Descriptions of Classical Light: A Path Integral Story</p> <p><b>James Babington</b>, Thales Group, UK</p>
14:50-15:15	I	<p>Title: New Optical Method for the Non-Invasive Determination of the Sun Protection Factor of Sunscreens</p> <p><b>Lademann Juergen</b>, Charite - University Medicine Berlin, Germany</p>
15:15-15:30	Coffee Break	
15:30-15:55	I	<p>Title: Electron Manipulation Using Low-Energy THz Pulse</p> <p><b>Zoltan Tibai</b>, University of Pecs, Hungary</p>
15:55-16:20	I	<p>Title: Special Fibers for Simultaneous Multiparameter Optical Sensing</p> <p><b>Gabriela Statkiewicz-Barabach</b>, Wroclaw University of Science and Technology, Poland</p>
16:20-16:45	I	<p>Title: Single-Cell Characterization of Microalgae by Multispectral Chemical Imaging</p> <p><b>Julia Sophie Boeke</b>, Leibniz Institute of Photonic Technology, Germany</p>
Closing the Conference for Day 1		

## Day 2 | April - 22, 2022

Session Chair	Prof. Mario Ferreira, University of Aveiro, Portugal
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### Keynote Session

10:00-10:30

K

Title: Demultiplexer Technology Based On Cascaded MMI and Angled MMI Waveguides

**Dror Malka**, Holon Institute of Technology - HIT, Israel

### Invited Session

Session:01

**Photonic Integrated Circuit & Organic Photonic Materials | Applications of Nonlinear Optics & Optical Fiber Technology | Semiconductor Lasers, Materials and Applications | Wave Propagation**

10:30-10:55

I

Title: Highly Nonlinear Optical Fibers

**Mario Ferreira**, University of Aveiro, Portugal

10:55-11:20

I

Title: Re-Growth and Grating-Free High Speed Electro-Absorption Modulated Lasers for Short Haul Communication

**Xing Dai**, Tyndall National Insitute, Ireland

11:20-11:35

**Coffee Break**

11:35-12:00

I

Title: Electrically Pumped Mid-IR Solitons and Chaotic Light

**Martin Franckie**, ETH Zurich, Switzerland

12:00-12:25

I

Title: Coherent Arrays of Oxide-Confined VCSELs for Datacom and Sensing Applications

**Vitaly Shchukin**, Vertically Integrated Systems, Germany

12:25-12:50

I

Title: Articular Cartilage Characterization by Combining Infrared, Near-Infrared and Raman Spectral Data

**Rubina Shaikh**, Technological University Dublin, Ireland

12:50-13:15

I

Title: Deep Neural Networks for Fringe analysis

**Mariano Rivera Meraz**, CIMAT, Mexico

End of the Physical Conference

## Day 1 | April - 22, 2022

### Virtual Presentations

#### London Time Zone (GMT+1)

10:00-10:40	P	Title: The Interplay of Topology and Nonlinearity in Photonics <b>Zhigang Chen</b> , Nankai University, China
10:40-11:05	I	Title: Implementation of Injection-locked Fabry Perot Lasers as Activation Unit in Photonic Neural Networks <b>Jasna Crnjanski</b> , University of Belgrade, Serbia
11:05-11:30	I	Title: Will Update Soon <b>Rekha Gautam</b> , Tyndall National Institute, Ireland
11:30-11:55	I	Title: Will Update Soon <b>Mohsen Rahmani</b> , Nottingham Trent University, UK
11:55-12:20	I	Title: Current Developments in Low Coherent Imaging <b>Bettina Heise</b> , Johannes Kepler University Linz, Austria
12:20-13:00	P	Title: Mining Gold for $\chi^{(2)}$ on the Way to Quantum Technology <b>Jimmy Xu</b> , Brown University, USA
13:00-13:25	I	Title: Metrology of Freeform Optics using Vision Rays <b>Konstantinos Falaggis</b> , University of North Carolina at Charlotte, USA
13:25-13:50	I	Title: Perovskite Light Emitting Metamaterials and Devices <b>Qing Gu</b> , North Carolina State University, USA
13:50-14:30	P	Title: Lasers, Optics and Photonics World Forum <b>Jannick rolland</b> , University of Rochester, USA
14:30-14:55	I	Title: Lasers, Optics and Photonics World Forum <b>Isabel C S Carvalho</b> , Pontifical Catholic University of Rio de Janeiro(PUC-Rio), Brazil

Closing the Virtual Conference for Day 2

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## Day 2 | April - 23, 2022

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### Virtual Presentations

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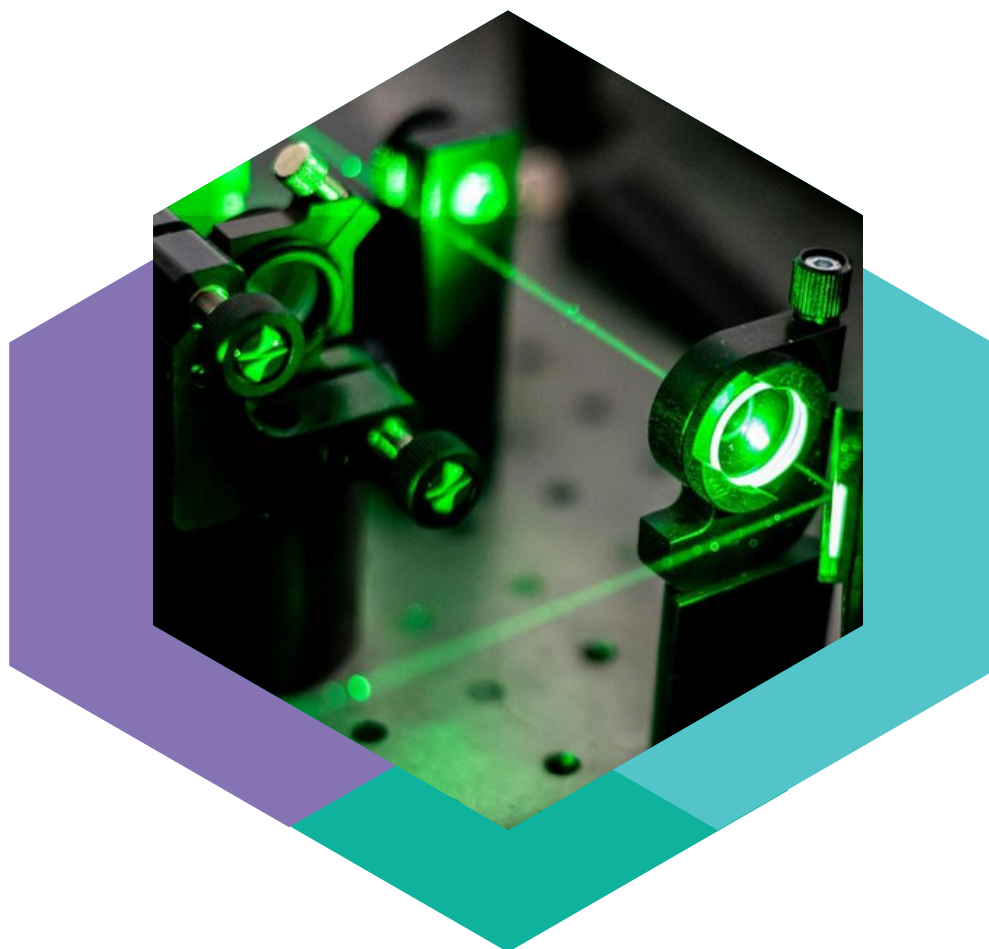
#### Beijing Time Zone (GMT+8)

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09:00-09:40	P	<p>Title: Integrated Kerr Microcombs for Optical Neural Networks and Ultrahigh Bandwidth Data Transmission</p> <hr/> <p><b>David J Moss</b>, Swinburne University of Technology in Melbourne, Australia</p>
09:40-10:05	I	<p>Title: Second Harmonic Generation and Spontaneous Parametric Down Conversion in Dielectric Loaded Lithium Niobate Thin Film</p> <hr/> <p><b>Jihua Zhang</b>, The Australian National University, Australia</p>
10:05-10:35	K	<p>Title: 3D Human Joints Extraction and Applications Using Infrared Time-of-Flight Depth Camera</p> <hr/> <p><b>Yang Yue</b>, Xi'an Jiaotong University, China</p>
10:35-11:00	I	<p>Title: Fast Infrared Beam Steering Based on Reconfigurable Metasurfaces</p> <hr/> <p><b>Shaowei He</b>, University of Electronic Science and Technology of China, China</p>
11:00-11:30	K	<p>Title: Emerging Optoelectronic Devices for 6G Wireless Optical Links</p> <hr/> <p><b>Chao Shen</b>, Fudan University, China</p>
11:30-11:55	I	<p>Title: Frequency Selective Control of Spatial-Temporal Metasurface</p> <hr/> <p><b>Yan Zhang</b>, Capital Normal University, China</p>
11:55-12:20	I	<p>Title: Characteristics of Bismuth-Based Frequency Comb Laser</p> <hr/> <p><b>Yutaka Fukuchi</b>, Tokyo University of Science, Japan</p>
12:20-12:50	K	<p>Title: Microlasers Made from Hybrid-shell Colloidal Quantum Wells</p> <hr/> <p><b>Sun Handong</b>, Nanyang Technological University, Singapore</p>
12:50-13:15	I	<p>Title: Development of <math>(\text{Ce,Gd})_3(\text{Ga,Al})_5\text{O}_{12}</math> Crystal Scintillators by the Optical Floating Zone Method</p> <hr/> <p><b>Yun Shi</b>, Chinese Academy of Sciences, China</p>
13:15-13:55	P	<p>Title: Low-power and High Frequency Optogenetic Control of Neuronal Spiking</p> <hr/> <p><b>Sukhdev Roy</b>, Dayalbagh Educational Institute, India</p>

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<p><b>13:55-14:20</b></p> <p><b>I</b></p>	<p>Title: 3D/2D Switchable Augmented-reality Display System using Liquid-crystalline Microlens Array and Electrical Polarizer</p> <hr/> <p><b>Munkh-Uchral Erdenebat</b>, Chungbuk National University, South Korea</p>
<p><b>14:20-14:45</b></p> <p><b>I</b></p>	<p>Title: Full-Color Holographic Stereogram Printing System Using Fast Digital Content Generation Based On IDP Algorithm</p> <hr/> <p><b>Anar Khuderchuluun</b>, Chungbuk National University, South Korea</p>
<p><b>14:45-15:10</b></p> <p><b>I</b></p>	<p>Title: The LC-MLA using the Holographic Waveguide-type HOE for 2D/3D Image Switchable</p> <hr/> <p><b>Nyamsuren Darkhanbaatar</b>, Chungbuk National University, South Korea</p>
<p>End of the Virtual Conference</p>	





# Upcoming Conference

## LOPFORUM2023

*International Forum on Lasers, Optics and Photonics*

**MARCH 13-15, 2023 | Las Vegas, USA**

