

IONS Balvanos 2017 Program

Monday, 24th of July 2017

16 ⁰⁰	Arrival
18 ⁰⁰	Registration
20 ⁰⁰	Welcome Dinner
21 ⁰⁰	Icebreaking Activity

Tuesday, 25th of July 2017

8 ⁰⁰	Registration
9 ⁰⁰	Opening Ceremony
	Chapter Management Session
9 ¹⁵	Terence Rooney – The Optical Society, USA Displaying your Passion for Optics and Photonics: Successful Tips for Showcasing Your Research
	Laser in Life Sciences Session Chairman: Nataliia Mysko-Krutik
9 ⁴⁵	Mihail-Lucian Pascu – Laser Spectroscopy Lab., INFLPR, Romania Optofluidic Properties of Microdroplets to Be Used in Biomedicine
10 ¹⁵	Ágota Simon – INFLPR/Univ. of Bucharest, Romania Laser Modified Medicine Droplets in Terrestrial and Hypergravity Conditions: Generation, Behaviour and Interaction with Target Surfaces of Biomedical Interest
10 ³⁰	Coffee Break
	Advanced Materials and Thin Films Session Chairman: Ágota Simon
11 ⁰⁰	Ion Mihăilescu – Laser-Surface-Plasma Interactions Lab., INFLPR, Romania Laser Pulses Interaction with Solid and Liquid Materials: Applications to Biomedical, Mechanical and Chemical Top Technologies
	Laser in Life Sciences Session (cont.) Chairman: Nataliia Mysko-Krutik
11 ³⁰	Nicolaie Pavel – Solid-State Quantum Electronics Lab., INFLPR, Romania Ignition by Laser Sparks of a Gasoline Automobile Engine
12 ⁰⁰	Shaimaa Ibrahim Elhusainy – National Inst. of Laser Sciences, Cairo Univ., Egypt Skin Disease Diagnosis Using Digital Image Processing
12 ¹⁵	Omnia Hamdy – National Inst. of Laser Enhanced Sciences, Cairo Univ., Egypt Measuring Optical Diffuse Reflection and Transmission of Tissues: A Comparative Study
12 ³⁰	Lunch
14 ⁰⁰	Angela Staicu – Laser Spectroscopy Lab., INFLPR, Romania Light Triggered Drug Complexes for Targeted Delivery

Advanced Materials and Thin Films Session (cont.)

Chairman: Ágota Simon

- 14³⁰ **Alexandra Palla Papavlu** – Photonic Processing of Advanced Materials Lab., INFLPR, Romania
Flexible Micro-sensor Fabrication via Laser Direct Writing
- 15⁰⁰ **Nataliia Mysko-Krutik** – B. Verkin Inst. for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, Ukraine
Structure Investigation of Condensed CO-Ar Films
- 15¹⁵ **Carmen Ristoscu** – INFLPR, Romania
Pulsed Laser Synthesis of Bioactive Thin Layers with Antimicrobial Properties
- 15³⁰ **Anca Bonciu** – INFLPR/Univ. of Bucharest, Romania
Synthesis and Characterization of Hybrid Biomimetic Coatings Using Matrix Assisted Pulsed Laser Evaporation Technique
- 15⁴⁵ **Vusal Geidarov** – B. Verkin Inst. for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, Ukraine
Investigation of the Structure Polyimide PM-A After Low-temperature Deformation by Means of X-rays Dispersion

16⁰⁰ Coffee Break

Optics, Photonics and Optoelectronics Session

Chairman: Consuela Matei

- 16³⁰ **Adrian Petriş** – Nonlinear and Informations Optics Lab., INFLPR, Romania
All-optical Spatial Light Modulation in Novel DNA-based Photonic Materials
- 17⁰⁰ **Bogdan-Ştefăniţă Călin** – CETAL-INFLPR/Univ. Politehnica of Bucharest, Romania
Laser Fabrication of Diffractive Optical Elements for Two-dimensional Airy Beams
- 17¹⁵ **Tamás Szarvas** – Budapest Univ. of Technology and Economics, Hungary
Simulation of Second Harmonic Wave Generation by Extended Finite Difference Frequency Domain Method
- 17³⁰ **Marianna Hovsepyan** – Politecnico di Torino, Italy
Spatial Division Multiplexing: Benefits of Coupled-Core Multi-Core Fibers
- 17⁴⁵ **Miriam Kosik** – Inst. of Physics, Astronomy and Informatics, Nicolaus Copernicus Univ., Poland
Plasmonic Spontaneous Emission Enhancement beyond Dipole Approximation: A Green's Functions' Approach
- 18⁰⁰ **Sergii Poperezhai** – B. Verkin Inst. for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, Ukraine
THz Spectroscopy Study of the Phase Transition in Ferroelastic $KDy(MoO_4)_2$
- 18¹⁵ **Petrişor Bleotu** – ELI-NP, IFIN-HH/Univ. Politehnica of Bucharest, Romania
Automatic Setup for Quantum Cascade Lasers Characterization Using the LabVIEW Programming Environment

18³⁰ Free Time

19³⁰ Dinner

Wednesday, 26th of July 2017

Optics, Photonics and Optoelectronics Session (cont.)

Chairman: Consuela Matei

9⁰⁰ **Ștefan Antohe** – Faculty of Physics, Univ. of Bucharest, Romania
Photovoltaic Structures Based on Organic and Biologic/Organic Thin Films

Plasma Physics and Applications Session

Chairman: Cristina Achim

9³⁰ **Ion Tiseanu** – X-ray Imaging Lab., INFLPR, Romania
X-ray Tomography/Fluorescence by Synchrotrons and Conventional X-ray Sources: Application to Imaging of Materials and Structures Synthesized/Processed with Lasers, Plasma and Electron Radiation

10⁰⁰ **Cătălin Ticoș** – Electron Accelerator Lab., INFLPR, Romania
Solar Panel Cleaning on Mars

10³⁰ Coffee Break

Plenary Session

11⁰⁰ **Marcus Motzkus** – Inst. of Physical Chemistry, Heidelberg Univ., Germany
Treating Complex Molecules with Complex Femtosecond Pulses

Exhibition Session

12⁰⁰ **George Cozmenco** – Iris Broadcast, Romania

12³⁰ Lunch

Laser and Ultrafast Phenomena

Chairman: Bogdan-Ștefăniță Călin

14⁰⁰ **Ioan Dâncuș** – ELI-NP, IFIN-HH, Romania
ELI-NP Status and Perspectives

14³⁰ **Consuela Matei** – INFLPR, Romania
Array Detector for Dosimetry of Laser Accelerated Particle Beams

14⁴⁵ **Stefano Severino** – Univ. di Napoli Federico II, Italy
Nanometric laser machining with two-colors laser technique using vortex beams

15⁰⁰ **Săndel Simion** – INFLPR, Romania
Coherent Beam Combination of Ultrashort and Ultraintense Laser Pulses

15¹⁵ **Romeo Bănici** – INFLPR, Romania
One Long and Two Short Pumping Pulses Control for Plasma X-ray Amplifier Optimization

15³⁰ **Karapet Manukyan** – Ultrafast Optics Lab., Yerevan State Univ., Armenia
Simple Similaritonic Technique for Measurement of the Bell-Shaped, Two-Peak and Compressed Pulse Duration in Femtosecond Domain

15⁴⁵ Coffee Break

16¹⁵ **Poster Session**

18¹⁵ Free Time

19³⁰ Dinner

Thursday, 27th of July 2017

Professional Development Session

9⁰⁰ **Mariia Pashchencko** – OSA Ambassador 2017
Mentoring as a Way for Student Chapter Success

Micro- and Nanotechnologies Session

Chairman: Sergii Poperezhai

9³⁰ **Marian Zamfirescu** – CETAL-INFLPR, Romania
Laser Processing and Characterizations of Complex Geometries

10⁰⁰ **Gerus Anna** – B. Verkin Inst. for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, Ukraine
Selective Detection of Carbon Dioxide through the Quantum Electric Conductivity of Point Contacts

10¹⁵ Coffee Break

Plenary Session

10³⁰ **Scott Diddams** – NIST/Univ. of Colorado, USA
Optical Frequency Combs for Clocks, Spectroscopy and Astronomy

11³⁰ Lunch

12³⁰ Field Trip to Lake Saint Ana & Surroundings

21⁰⁰ BBQ & Campfire

Friday, 28th of July 2017

Section Management Session

9⁰⁰ **Roberta Caruso** – EPS Young Minds Action Committee Board Member
EPS Young Minds Project: Present and Future

Outreach Session

9³⁰ **Round Table Discussions**

10⁰⁰ **Hands on Experiments**

10¹⁵ Coffee Break

10³⁰ **Closing Ceremony**

11³⁰ Lunch

12⁰⁰ Departure

12³⁰ Optional Trip to Dracula's Castle & Medieval City of Braşov
