

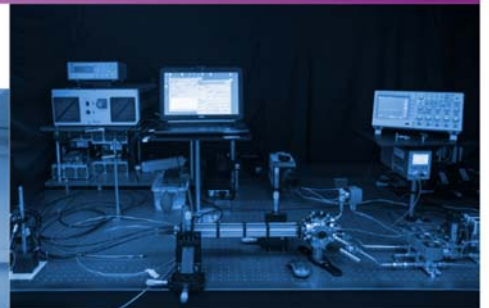
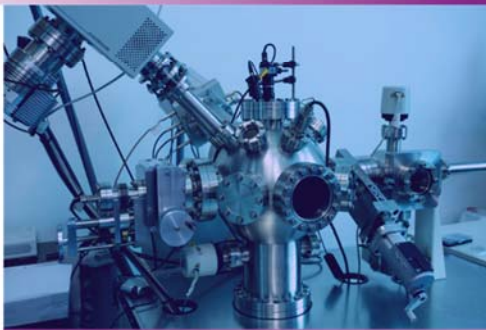


**ICLPR - ST**

**International Conference on Laser, Plasma and Radiation  
Science and Technology**

**June 7-10 2022 Bucharest  
Parliament Palace**

# Programme



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## Final Programme

Tuesday, 7th June 2022

EEST time = GMT +3

08:00 – 08:30

Access to Parliament Palace

08:30 - 09:00

REGISTRATION

OPENING CEREMONY

Chair: **M. DINESCU**

09:00 - 09:30

**George Cristian TUTA** - Quaestor Chamber of Deputies  
**Sorin COSTREIE** - State Adviser, Chancellery of the Prime Minister  
**Hubert Petru Stefan THUMA** – President, Ilfov County Council  
**Mihaela TOADER** - Ilfov County Public Administrator  
**Narcis Catalin CONSTANTIN** - Mayor of the Magurele City  
**Iulian POPESCU** - Secretary of State, Ministry of Research, Innovation and Digitization  
**Adrian CURAJ** – General Director UEFISCDI  
**Cristian Nicolae MIHAILESCU** – General Director INFLPR

Plenary  
session 1.

**Advanced laser - based techniques for material synthesis and processing**

Chair: **I.N. MIHAILESCU**

09:30 – 10:15

**Thomas LIPPERT**

*PLD for preparing model samples using neutron and synchrotron techniques*

10:15 – 10:45

**Razvan STOIAN**

*Ultrafast non-diffractive beams with tunable dispersion; opportunities for smart laser material processing*

10:45 – 11:15

COFFEE BREAK

Plenary  
session 2.

**Plasma driven applications in environment, life-sciences and energy**

Chairs: **P. BRUGGEMAN, M. NISTOR**

11:15 – 11:45

**Annemie BOGAERTS**

*Towards a sustainable future: Plasma technology for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub> conversion into value-added compounds or renewable fuels*

11:45 – 12:15

**Lenka ZAJICKOVA**

*Surface processing with Radio-Frequency atmospheric pressure plasma jets*

12:15 – 12:30

Pascal BRAULT

*Insights into plasma degradation of phenol and sulfamethoxazole using ab-initio molecular dynamics*

12:30 – 12:45

Monica R. NEMTANU

*Synergistic effect of dual processing with Plasma and Electron Beams on Starch*

12:45 – 14:30

LUNCH

Plenary  
session 3.

**Thermonuclear fusion - from fundamentals to experimental**

Chairs: **G. DINESCU, I. TISEANU**

14:30 - 15:00

**Christian GRISOLIA**

*Thermonuclear fusion: some open issues concerning tritium*

15:00 – 15:30	<b>Andrea MURARI</b>	<i>Innovative data analysis tools: from causality detection to data driven theory</i>
15:30 – 15:45	Florin SPINEANU	<i>Common topological concepts in fluid/plasma, optics, materials</i>
15:45 – 16:00	Madalina VLAD	<i>Generalization of the Brownian diffusion to the transport by continuous movements: universal laws and complex special processes</i>
16:00 – 16:15	Calin ATANASIU	<i>Modelling of tokamak plasma disruptions triggered by vertical displacements</i>
16:15 – 16:30	<b>COFFEE BREAK</b>	
16:30 – 18:00	<b>POSTER SESSION 1</b>	

## Wednesday, 8th June 2022

**EEST time = GMT +3**

<b>Plenary session 4.</b>	<b>Modern applications for improved quality of life</b>	<b>Chairs: B. MITU, L. ZAJICKOVA</b>
08:30 – 09:15	<b>Peter BRUGGEMAN</b>	<i>Low temperature plasma science to advance human health and enable a sustainable future</i>
09:15 – 09:45	<b>Gabriel POPESCU</b>	<i>Phase imaging with computational specificity (PICS) for biomedical application</i>
09:45 – 10:00	Aaron PELED	<i>Optimizing RED spectral band fluorescence of various edible plants</i>
10:00 – 10:15	Bianca TATARCAN	<i>Fourier-Transform Infrared Spectroscopy monitoring during the plasma exposure of seeds</i>
10:15 – 10:30	Mohamed Ali ANTOISSI	<i>Comparison of 2.4D treatment in water by non thermal plasma, activated carbons adsorption and coupled non thermal plasma-activated carbon process</i>
10:30 – 10:45	Luiza-Izabela JINGA	<i>Doxorubicin loaded SPIONs - characterization and antimelanoma activity</i>
10:45 – 11:15	<b>COFFEE BREAK</b>	
<b>Plenary session 5.</b>	<b>Laser material processing – 1</b>	<b>Chairs: T. LIPPERT, H. CHAMATI</b>
11:15 – 11:45	<b>Traian DUMITRICA</b>	<i>Computationally guided design of materials: from microelectronics to aerospace applications</i>
11:45 – 12:15	<b>Koji SUGIOKA</b>	<i>Hybrid femtosecond laser processing for fabrication of 3D microfluidic SERS chips enabling attomolar sensing</i>

12:15 – 12:30	Alexandra PALLA-PAPAVLU	<i>Simulated interaction of ns-UV radiation with a polymer dynamic release layer in laser-induced forward transfer</i>
12:30 – 12:45	Dror MALKA	<i>Angled MMI power combiner based on silicon slot waveguide technology</i>
12:45 – 13:00	Florin ANDREI	<i>Photoelectrochemical water splitting properties of LaFeO<sub>3</sub> perovskite thin films</i>
13:00 – 14:30	<b>LUNCH</b>	
<b>Plenary session 6.</b>	<b>Laser material processing – 2</b>	<b>Chairs: J.P GAUFILLET, S.A. BELDJILALI</b>
14:30 – 15:00	<b>Peter SCHAAF</b>	<i>Photon-Matter-interaction at the nanoscale: plasmonic nanosponges and plasma mediated defect engineering</i>
15:00 – 15:30	<b>Sylvain LECLER</b>	<i>Glass welding by ultrafast laser: how physics allow high throughput reducing micro-cracks</i>
15:30 – 15:45	Diana CHIOIBASU	<i>Medical devices of Titanium alloys obtained by laser additive manufacturing techniques</i>
15:45 – 16:00	Andrei POPESCU	<i>Analytical modelling of directed energy deposition additive manufacturing processes</i>
16:00 – 16:15	Mihai SOPRONYI	<i>Large area alumina thin film manufacturing technology by PLD</i>
16:15 – 16:30	<b>COFFEE BREAK</b>	
16:30 – 18:00	<b>POSTER SESSION 2</b>	

**Thursday, 9th June 2022**

**EEST time = GMT +3**

<b>Plenary session 7.</b>	<b>Advances in optics, laser and photonics</b>	<b>Chairs: C. UR, M. ZAMFIRESCU</b>
08:30 – 09:15	<b>Takunori TAIRA</b>	<i>Tiny integrated laser power chip for electron acceleration</i>
09:15 – 09:45	<b>Hassan CHAMATI</b>	<i>Using photons to manipulate the magnetic properties of the XY spin chain</i>
09:45 – 10:00	Gabriel Petrisor BLEOTU	<i>Post-compression experiments. Towards Exawatt lasers</i>
10:00 – 10:15	Dan Gh. MATEI	<i>Fast optical shutter with large aperture</i>

10:15 – 10:30	Andrei STANCALIE	<i>Gamma irradiation of arc-induced Long Period Fiber Gratings for dosimetry applications</i>
10:30 – 10:45	Emil Mihai PAVELESCU	<i>Improvement in photoluminescence of GaAsNP alloys by electron irradiation and rapid thermal annealing</i>
10:45 – 11:15	<b>COFFEE BREAK</b>	
<b>Plenary session 8.</b>	<b><i>Interaction of radiation with matter under extreme conditions</i></b> <b>Chairs: V. CRACIUN, H. CHAMATI</b>	
11:15 – 11:45	<b>Calin UR</b>	<i>Status and perspectives at ELI-NP</i>
11:45 – 12:00	Daniel URSESCU	<i>Prospective HPLS Developments: the future of the Extreme Light Infrastructure</i>
12:00 – 12:15	Ioan DANCUS	<i>The 10 PW peak power laser System at ELI-NP – Status update</i>
12:15 – 12:30	Mihail CERNAIANU	<i>Results of the commissioning experiments at the 1 PW area of ELI-NP</i>
12:30 – 12:45	Liviu NEAGU	<i>Experimental activities at the 100TW laser beam area of ELI-NP</i>
12:45 – 13:00	Olimpia BUDRIGA	<i>Enhancement of laser pulse intensity from <math>10^{23}</math> W/cm<sup>2</sup> to <math>10^{24}</math> W/cm<sup>2</sup> by using a plastic micro-cone target</i>
13:00 – 14:30	<b>LUNCH</b>	
<b>Plenary session 9.</b>	<b><i>Innovative technologies for sustainable future</i></b> <b>Chairs: C.N. MIHAILESCU, N. SCARISOREANU</b>	
14:30 – 15:00	<b>Jean-Paul GAUFILLET</b>	<i>PAMPROD PROJECT “Fabrication of large scale parts by DED Additive Manufacturing, right the first time”</i>
15:00 – 15:30	<b>Selma MEDEDOVIC THAGARD</b>	<i>Electrical discharges in a bubble column reactor: A novel high throughput reactor design for water treatment</i>
<b>INDUSTRIAL WORKSHOP</b>		
15:30 – 16:30	<b>Madalin IONITA</b> – Association Magurele Science Park <b>Liana SOCACIU-SIEBERT</b> – SPECS Surface Nano Analysis GmbH <b>Ion TISEANU</b> - INFLPR	
16:30 – 18:00	<b>Visit to Parliament House</b>	
19:00 – 22:00	<b>FESTIVE DINNER</b>	

**Friday, 10<sup>th</sup> June, 2022**

**EEST time = GMT +3**

**Plenary session 10.**     ***Thin films and nanomaterials - process control via diagnostics***  
**Chairs: T. DUMITRICA, J. LANCOK**

08:45 – 09:15	<b>Sid Ahmed BELDJILALI</b>	<i>LIBS analysis for quality control in solar cell production: A theoretical and experimental approach</i>
09:15 – 09:30	Evripides KYRIAKIDES	<i>Fabrication of thin-film solar cells by Pulsed Laser Deposition</i>
09:30 – 09:45	Stefan Andrei IRIMICIUC	<i>Real-time plasma diagnostics: towards controlling pulsed laser deposition process</i>
09:45 – 10:00	Tian TIAN	<i>Implementation and characterization of a plasma reactor dedicated to antibiotics removal</i>
10:00 – 10:15	Jan HANUŠ	<i>Plasma assisted deposition of TiO<sub>2</sub> nanotubes doped by Ag and Cu</i>
10:15 – 10:30	Bogdan SAVA	<i>Photo-Mobile-Polymer new functionalities by plasmonic resonance, opal/ reverse opal structures and laser polymerization</i>
10:30 – 10:45	Mihail LUNGU	<i>Non-destructive examination of cable-in-conduit conductors (CICC) using a multi-scale methodology for correlating the manufacturing stages with mechanical, electrical and magnetic properties</i>

10:45 – 11:15

**COFFEE BREAK**

**Plenary session 11.**     ***Biomedical applications based on laser, plasma and radiation processing***  
**Chairs: G. POPESCU, G. SOCOL**

11:15 – 11:45	<b>Stefan VOICU</b>	<i>Polymeric membrane materials for biomedical applications</i>
11:45 - 12:15	<b>Murat SEN</b>	<i>Modification of silicone elastomers by ionizing radiation</i>
12:15 – 12:30	Anita Ioana VISAN	<i>Controlled release of antibiotic from composite implant coatings</i>
12:30 – 12:45	Gianina POPESCU-PELIN	<i>Hydroxyapatite-alumina-zeolite composite coatings of natural origin synthesized by PLD for biomedical applications</i>
12:45 – 13:00	Merve Erginer HASKÖYLÜ	<i>Resveratrol-loaded levan nanoparticles produced by electro-hydrodynamic atomization technique</i>

13:00 – 14:30

**LUNCH**

**Plenary session 12.**     ***Modern devices for ultrasensitive detection***  
**Chairs: M. DINESCU, A. PALLA-PAPAVLU**

14:30 – 15:00	<b>Jan LANCOK</b>	<i>Pulsed Laser Deposited active films for chemical sensors</i>
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15:00 – 15:30	<b>Laurentiu BRAIC</b>	<i>Deep-UV photo detectors based on epitaxial beta-polymorph Ga<sub>2</sub>O<sub>3</sub> fabricated by Pulsed Laser Deposition and Magnetron Sputtering</i>
15:30 – 15:45	Florin NEDELICUT	<i>Coanda effect aerodyne – a new platform fit for monitoring environment in wetlands using sensing membranes based on CNT</i>
15:45 – 16:00	Iulia ANTOHE	<i>Development of a polymer based fiber optic – surface plasmon resonance (FO-SPR) sensor for environmental monitoring</i>
16:00 – 16:15	Andrei STOCHIOIU	<i>Highly specific hydrogen gas detection using PMMA/PANI/Au chemoresistive sensor</i>
16:15 – 16:30	<b>Closing Ceremony and Awards</b>	

## Poster session 1

**Chairs: S.I. VOICU, C. POROSNICU, L. DUTA**

**Tuesday, June 7th, 16:30 - 18:00**

### **Topic 1**

### **Fundamentals, diagnostics and modelling in laser, plasma and radiation physics**

P1.01	Andreea CROITORU	<i>Electron vortices as precursors of the Edge Localized Modes in tokamak</i>
P1.02	Dragos Iustin PALADE	<i>Transport of low-Z impurities in the presence of drift-type turbulence in tokamak plasmas</i>
P1.03	Dragos Iustin PALADE	<i>Effects of non-Gaussianity on turbulent transport in magnetized plasmas and astrophysical systems</i>
P1.04	Madalina VLAD	<i>On the existence of hidden coherent motion of particles and the effects on transport in turbulent plasmas and fluids</i>
P1.05	Octavian Toma	<i>Excited-state absorption in optically-scattering erbium-doped ceramics</i>
P1.06	Alexandru CRACIUN	<i>Vector vortex beams generated by polarization conversion in uniaxial crystals</i>
P1.07	Sid Ahmed BELDJILALI	<i>In-depth analyses of p-type silicon solar cells by laser-induced breakdown spectroscopy (LIBS)</i>
P1.08	Sid Ahmed BELDJILALI	<i>Quantitative analysis of diatomite by laser-induced breakdown spectroscopy (LIBS)</i>
P1.09	Radu UDREA	<i>Sub threshold electrical measurements using Langmuir Probe method</i>
P1.10	Marian MOGILDEA	<i>The assessment of the breakthrough voltage induced by the microwave field in diamagnetic, paramagnetic and ferroelectric metallic wires</i>
P1.11	Adrian SCURTU	<i>Coaxial plasma gun used in space sciences and space applications</i>

P1.12	Maria - Luiza MITU	<i>Chaotic oscillations of Vertically Aligned micro-Rods in Plasma Sheath</i>
P1.13	Dorina TICOS	<i>Rotation of a dust cluster by an electron beam</i>

**Topic 2**

**Advances in optics, laser and photonics**

P2.01	Stefania HAU	<i>Luminescence and optical thermometry of the Pr<sup>3+</sup> ions doped Ca<sub>3</sub>(M,Ga)<sub>5</sub>O<sub>12</sub> (M<sup>5+</sup> = Nb, Ta) garnet phosphors</i>
P2.02	Ana Maria VOICULESCU	<i>Luminescence properties and optical thermometry of Er<sup>3+</sup>-Yb<sup>3+</sup> co-doped LaAlO<sub>3</sub> phosphors</i>
P2.03	Angela ENACHI	<i>Upconversion luminescence in BiTa<sub>7</sub>O<sub>12</sub> codoped with Er<sup>3+</sup> and Yb<sup>3+</sup></i>
P2.04	Alin BROASCA	<i>Czochralski growth and characterization of new Pr:LGSB nonlinear optical crystal</i>
P2.05	Madalin GRECULEASA	<i>Crystal growth and characterization of La<sub>0.733</sub>Nd<sub>0.035</sub>Gd<sub>0.452</sub>Sc<sub>2.78</sub>(BO<sub>3</sub>)<sub>4</sub> as a new bifunctional laser and nonlinear optical crystal</i>
P2.06	George STANCIU	<i>Fabrication and laser performances of Nd- and Yb-doped Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub> transparent ceramics</i>
P2.07	Catalina Alice BRANDUS	<i>Exploring x(2) nonlinearity for mode-locking of Nd:LGSB laser</i>
P2.08	Adrian PETRIS	<i>Direct measurement of ultrafast third-order optical nonlinearity of GaN crystals by third-harmonic generation</i>
P2.09	Adrian PETRIS	<i>Dye-doped DNA biopolymer in organic photonics</i>
P2.10	Petronela GHEORGHE	<i>Optical limiting functionality in novel nonlinear materials</i>

**Topic 4**

**New trends in thin films and nanomaterials synthesis and processing**

P4.01	Alexandru ANGHEL	<i>CrN<sub>x</sub> thin films synthesis by N<sub>2</sub> seeding a Thermionic Vacuum Arc Chromium plasma</i>
P4.02	Mihaela GHERENDI	<i>W-N coatings obtained by High Power Impulse Magnetron Sputtering technique</i>
P4.03	Tomy ACSENTE	<i>High-rate stable synthesis of W dust using a magnetron sputtering gas aggregation cluster source</i>
P4.04	Cornel STAIKU	<i>Deuterium release behavior from boron co-deposited layers obtained by varying working conditions</i>
P4.05	Paul Pavel DINCA	<i>Influence of temperature and ion energy on deuterium retention in beryllium layers</i>
P4.06	Ana Violeta FILIP	<i>The influence of deposition parameters on properties of rare earth doped boro-phosphate vitreous thin films</i>
P4.07	Valentin CRACIUN	<i>Single crystal metal oxide nanoparticles obtained by using microwave vaporization of metallic wires</i>
P4.08	Anca Daniela CRIVEANU	<i>Parametric study on the pressure in the synthesis of iron oxide nanoparticles synthesized by laser pyrolysis</i>
P4.09	Liviu DUTA	<i>Pulsed laser deposition of hydroxyapatite derived from various biological resources for suitable use in implantology</i>



P4.10	Simona BRAJNICOV	<i>Nanosurfaces with tunable wettability via matrix assisted laser evaporation</i>
P4.11	Agata NIEMCZYK	<i>Using solvents mixtures for EVA copolymer coatings by MAPLE</i>
P4.12	Gabriela PETRE	<i>MAPLE deposited organic thin films based on synthesized oligomers and PC70BM on silicon nanopatterned substrate</i>
P4.13	Valentina GRUMEZESCU	<i>MAPLE processed multifunctional coatings for metallic surfaces</i>
P4.14	Oana GHERASIM	<i>Laser-processed composite coatings for metallic implants</i>
P4.15	Laurentiu Nicolae RUSEN	<i>Biointerfaces based on Poly(N-isopropylacrylamide-butylacrylate) Copolymer obtained by MAPLE for bioengineering applications</i>
P4.16	Irina NEGUT	<i>The role of the magnetite-based nanostructured coatings functionalized with Nigella sativa and antibiotics for the wound care treatment &amp; management</i>
P4.17	Irina NEGUT	<i>MAPLE-obtained bioglass thin films as drug delivery and release systems</i>

**Topic 5**

**Modern applications in environment, life sciences and energy**

P5.01	Maria Luiza STINGESCU	<i>Polymer thin films processed by laser technique for organic solar cell applications</i>
P5.02	Sorin VIZIREANU	<i>Hybrid nanostructures based on vertically graphenes decorated with tungsten oxide nanoparticles for enhancement capacitive performance</i>
P5.03	Alexandra TREFILOV	<i>N-doped carbon nanowalls as microporous layers in PEM fuel cell</i>
P5.04	Cristina NITA	<i>Hard carbon materials derived from eco-friendly biomass for Na-ion batteries</i>
P5.05	Daniel AVRAM	<i>From luminescence thermometry to thermal imaging using lifetime thermometry</i>
P5.06	Claudiu HAPENCIUC	<i>The effect of the contact point asymmetry on the accuracy of thin films thermal conductivity measurement by Scanning Thermal Microscopy using Wollaston probes.</i>
P5.07	Ioan Mihail GHITIU	<i>Bismuth ferrite property engineering through stress and doping – a theoretical investigation</i>
P5.08	Aurelian MARCU	<i>ZnO nanowires SAW sensor: detection and discrimination of hydrogen isotopes</i>
P5.09	Iulia ANTOHE	<i>Highly-sensitive cadmium detection in water samples using a portable plasmonic based optical fiber sensor</i>
P5.10	Florin BILEA	<i>The potential of pulsed corona discharge for antibiotic removal</i>
P5.11	Mihai BONI	<i>System for water treatment based on singlet oxygen micro-nanobubbles</i>
P5.12	Cristina ACHIM (POPA)	<i>Experimental investigation on water adsorption using laser photoacoustic spectroscopy</i>
P5.13	Adriana SMARANDACHE	<i>Microplastics' laser-based detection in microdroplets of water</i>

P5.14	Ionut Relu ANDREI	<i>Micro-droplet temperature characterization using a fibre Bragg grating</i>
P5.15	Ovidiu STOICAN	<i>A planar electrodynamic trap for microparticles storing</i>
P5.16	Monica MAGUREANU	<i>Plasma treatment of sunflower seeds positively affects plant growth and crop yield</i>
P5.17	Ana Maria BRATU	<i>Role of ethylene and ethanol from internal atmosphere of apples under long-term storage</i>
P5.18	Iulia ANTOHE	<i>Ara h 1 peanut allergen detection using a dual-zone optical fiber aptasensor</i>
P5.19	Mioara PETRUS	<i>Atmospheric ammonia concentration measurements in a peri-urban area using a laser photoacoustic spectroscopy detector</i>
P5.20	Cristina CRACIUN	<i>Processing of electrochemical sensors by matrix-assisted pulsed laser evaporation (MAPLE) for nitrites detection in water</i>
P5.32	Valentina GRUMEZESCU	<i>Effective delivery of 5-fluorouracil through polymeric NPs as promising therapeutic strategy in colorectal cancer</i>

### **Topic 6**

### **Innovative technologies for sustainable future**

P6.01	Sabin MIHAI	<i>Investigation of Ti based metal matrix composite materials obtained by laser melting deposition</i>
P6.02	Florin ANDREI	<i>Plasma assisted thermal oxidation of W foils for photoelectrochemical water-splitting applications</i>
P6.03	Dumitru MANICA	<i>Mechanical testing for Al<sub>2</sub>O<sub>3</sub> layers, prepared by PLD and large area PLD</i>
P6.04	Andreea GROZA	<i>Testing of optical sensors for aquaculture applications</i>
P6.05	Mircea PATRASCOIU	<i>Automation and integration of the vacuum system within the 1 PW laser experimental area at ELI-NP</i>
P6.06	Ionut Relu ANDREI	<i>Chaotic Technology for Experimenting Crypto-Systems</i>
P6.07	Anda STANCIU	<i>Influence of Trapped Magnetic Fields on the Magnetoresistance of Ferromagnetic Layers</i>

**Poster session 2****Chairs: F. SIMA, A. STAIKU, M. FILIPESCU****Wednesday, June 8th, 16:30 - 18:00****Topic 1****Fundamentals, diagnostics and modelling  
in laser, plasma and radiation physics**

P1.14	Alexandru MAGUREANU	<i>Plasma imaging diagnostics for high power lasers experiments</i>
P1.15	Anda Maria TALPOSI	<i>Influence of spatio-temporal couplings on the focus of ultrashort laser fields</i>
P1.16	Vicentiu IANCU	<i>Qualification and Optimization of Helical Phase Pulses in PW-Class Laser Systems</i>
P1.17	Andrei NAZIRU	<i>Spectral Phase Characterization For Ultrashort Pulses Far From Fourier Limit Duration</i>
P1.18	Laura IONEL	<i>Spatio-temporal coupling of ultra-intense femtosecond laser beams in few-cycle regime</i>
P1.19	Rares IOVANESCU	<i>Optimization of PIC simulations for LWFA</i>
P1.20	Mihai OANE	<i>Fourier two-temperature model to describe ultrafast laser pulses interaction with metals: a novel mathematical technique</i>
P1.21	Ion GRUIA	<i>Stretcher-amplifier-compressor high-power laser system for ultra short pulses generation</i>
P1.22	Ion GRUIA	<i>High-power fiber laser equipment for drones/UAV annihilation: numerical simulations</i>
P1.23	Cristian IORGA	<i>The study of laser field-induced dynamics in the photoionization of C III</i>
P1.24	Ioana KUNCSEK	<i>Numerical modelling of a fiber optic - surface plasmon resonance sensor employing gold and palladium as plasmonic materials</i>

**Topic 2****Advances in optics, laser and photonics**

P2.11	Iulia ANGHEL	<i>Design of two-dimensional photonic crystals in As<sub>2</sub>S<sub>3</sub> film</i>
P2.12	Mihai KUSKO	<i>Design and fabrication of diffractive corrective element working in mid-IR</i>
P2.13	Petru Vlad TOMA	<i>Microstructures for Dielectric Laser Acceleration fabricated by 3D Laser Lithography</i>
P2.14	Maria Alexandra BRAN	<i>Woodpile structures fabricated in microfluidic channels by laser processing for 3D cellular studies</i>
P2.15	Iuliana URZICA	<i>Patterning of metallic molds surfaces by laser irradiation</i>
P2.16	Florin GAROI	<i>Monochromatic spectrum reconstruction by geometric phase-shifting interferometry</i>

P2.17	Mihaela BOJAN	<i>Interferometric methods for gradient temperature determination in a water droplet</i>
P2.18	Petre Catalin LOGOFATU	<i>Terahertz beam profiling using super-resolution hyperspectroscopy</i>
P2.19	Andrei STANCALIE	<i>Charged particle beam diagnostics utilizing custom designed optical fiber sensors</i>
P2.20	Dimitrii NISTOR	<i>Backreflection monitoring system for high power laser system</i>

### **Topic 3**

### **Interaction of radiation with matter under extreme conditions**

P3.01	Alexei ZUBAREV	<i>Particle in cell simulations for direct drive inertial nuclear fusion</i>
P3.02	Gabriela BUICA	<i>Dressing effects in laser-assisted (e,2e) process in fast electron-hydrogen atom collisions in an asymmetric coplanar scattering geometry</i>
P3.03	Natalia MIHAILESCU	<i>One-temperature analytical model for femto-/atto-second laser beam-metals drilling with empirical testing: A novel approach</i>
P3.04	Aurelian MARCU	<i>EMP generation in laser particle acceleration processes</i>
P3.05	Constantin DIPLASU	<i>Analysis of ultrashort laser-driven electromagnetic pulses in correlation with electron acceleration in gas target at CETAL PW- laser system</i>
P3.06	Stefan POPA	<i>Design of colliding microjet target for laser driven experiments</i>
P3.07	Consuela Elena MATEI	<i>QADRO-fm: a new tool for absolute and relative dosimetry in FLASH radiotherapy</i>
P3.08	Ioana POROSNICU	<i>New considerations regarding dosimetry measurements for superficial X-ray irradiation of culture cells</i>
P3.09	Anca SCARISOREANU	<i>Correlations on the structure and properties of collagen hydrogels produced by e-beam crosslinking</i>
P3.10	Ion CALINA	<i>Hybrid hydrogels obtained by e-beam crosslinking</i>

### **Topic 4**

### **New trends in thin films and nanomaterials synthesis and processing**

P4.18	Florin GHERENDI	<i>Transparent conducting Nd doped ZnO thin films grown by pulsed electron beam deposition</i>
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**Topic 5**

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