

SPIG 2016 PROGRAM

Belgrade, Serbia, August 29 – September 2, 2016

Monday 29 th August 2016	
XiBiGP Workshop	NonEqProc Workshop
09:00-10:00	Registration
09:45-10:00	Hall A: Opening and Introduction Aleksandar Milosavljević (SOLEIL&IPB) and Paola Bolognesi (CNR)
	Hall B: Opening and Introduction Zoran Lj. Petrović (IPB) and Gordana Malović (IPB)
	Session 1, Hall A, Chair: Aleksandar Milosavljević
	Session 1, Hall B, Chair: Zoran Lj. Petrović
10:00-10:30	<i>Structure and dynamics of gas-phase biomolecules</i> Sadia Bari , DESY, Hamburg, Germany
	<i>Modelling heterogeneous reactions of oxygen-containing plasmas on silica surfaces</i> Vasco Guerra , Instituto Superior Técnico, Lisboa, Portugal
10:30-11:00	<i>Fragmentation of halothane molecule by synchrotron radiation</i> Sanja Tosic , Institute of Physics Belgrade, University of Belgrade, Serbia
	<i>A positron reaction microscope</i> James Sullivan , Canberra, Australia
11:00-11:30	<i>Inner shell spectroscopy of HNCO: photofragment of thymine</i> Fabian Holzmeier , SOLEIL, France
	<i>Atomic collision processes in hot, dense plasmas</i> Jianguo Wang , Institute of Applied Physics and Computational Mathematics, Beijing, PR China
11:30-12:00	Coffee break
	Session 2, Hall A, Chair: Ronnie Hoekstra
	Session 2, Hall B, Chair: Nevena Puač
12:00-12:30	<i>Size selective spectroscopy of molecular clusters</i> Kuno Kooser , University of Turku, Turku, Finland
	<i>New trends in low energy ion implantation</i> Svetlana Radovanov , Applied Materials/Varian Semiconductor, USA
12:30-13:00	<i>Electronic structure of small biologically relevant molecules in aqueous solutions studied by photoelectron spectroscopy</i> Robert Seidel , Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany
	<i>Heavy-particle processes in low-pressure water vapour discharge</i> Nikola Škoro , Institute of Physics Belgrade, Serbia
13:00-15:30	Lunch break
	Session 3, Hall A, Chair: Paola Bolognesi
	Session 3, Hall B, Chair: Gordana Malović
15:30-16:00	<i>Unusual fragmentation mechanisms in ionized biomolecules in the gas phase</i> Sergio Diaz-Tendero , Universidad Autónoma de Madrid, Madrid, Spain
	<i>A generalized Boltzmann equation for non-equilibrium charged particle transport via localized and delocalized states</i> Peter Stokes , James Cook University, Australia
16:00-16:30	<i>XUV Induced Ultrafast Dynamics in Biological Molecules</i> Mattea Castrovilli , CNR-IFN, Milano, Italy
	<i>Modelling low energy particle tracks in biologically relevant media</i> Lilian Ellis-Gibbins , CSIC, Madrid, Spain
16:30-17:00	<i>The NQS station (Nano-size Quantum System), as part of the SQS instrument (Small Quantum System) at the SASE3 branch of the European XFEL</i> Alberto De Fanis , European XFEL, Hamburg, Germany
	<i>Denpoh-Nanbu theory in modeling low pressure discharges</i> Vladimir Stojanović , Institute of Physics Belgrade, Serbia
17:00-17:30	Coffee break
	Joint Session 4, Hall A, Chair: Stephen Buckman
17:30-18:00	<i>Large Molecules Break-Dancing in the Spot Light</i> Ronnie Hoekstra , University of Groningen, Groningen, The Netherlands
	<i>Tuning the afterglow plasma composition in Ar/N₂/O₂ mixtures: characteristics and applications of a flowing surface-wave microwave discharge system</i> Kinga Kutasi , Wigner Research Centre for Physics, Hungarian academy of sciences, Budapest, Hungary
18:00-18:30	
18:30-19:00	<i>Molecular excitations by electron-impact in non-equilibrium aerospace and fusion plasmas</i> Roberto CELIBERTO , University of Bari, Italy
19:00-20:00	Welcome party

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Tuesday 30 th August 2016		
SPIG 2016 (day 1)		
PL – Plenary lecture: 35+10 min	TL – Topical lecture: 25+5 min	PR – Progres Report: 15+5 min
08:00-09:15	Registration	
09:15-09:45	Opening, Chairs: Aleksandar Milosavljević and Dragana Marić	
	Plenary Session 1, Hall ,Chair: Aleksandar Milosavljević	
09:45-10:30	Spectroscopy and dynamics of molecules of biological interest Lorenzo Avaldi , Institute for Material Structure, Monterotondo, Italy	
10:30-11:00	Coffee break	
	Plenary Session 2, Hall A, Chair: Dragana Marić	
11:00-11:45	Diffraction of Fast Atoms on Surfaces, Decoherence Due to Phonons, Electrons and Topological Defects Philippe Roncin , Institute for Molecular Sciences, Orsay, France	
11:45-12:30	Plasma Science towards Next-generation Healthcare Innovations Masaru Hori , Nagoya University, Nagoya, Japan	
12:30-14:30	Lunch break	
	Parallel Session A1 Chair: Ivan Mančev	Parallel Session B1 Chair: Luka Popović
14:30-15:00	High resolution absorption spectroscopy of transient species in the VUV range Nelson de Oliveira , Synchrotron SOLEIL, Gif sur Yvette, France	X-Ray Polarimetry: A New Way to Probe Astrophysical Plasma Rene Goosmann , University of Strasbourg, Strasbourg, France
15:00-15:30	Attosecond streaking of photoelectrons emitted from solids Christoph Lemell , Vienna University of Technology, Vienna, Austria	Relativistic plasmas in AGN jets: from synchrotron radiation to gamma-ray emission Giovanni La Mura , University of Padova, Padova, Italy
15:30-15:50	Electron impact action spectroscopy of mass/charge selected macromolecular ions Miloš Ranković , Institute of Physics, Belgrade, Serbia	Plasma Treatment of Metal Surface by Nanosecond Diffuse Discharge at Atmospheric Pressure Mikhail Erofeev , Institute of High Current Electronics, Russia
15:50-16:30	Coffee break	
	Parallel Session A2 Chair: Milivoje Ivković	Parallel Session B2 Chair: Igor Savić
16:30-17:00	Gas heating mechanisms in N ₂ -O ₂ plasmas Carlos Pintassilgo , University of Porto Porto, Portugal	A Hybrid Transport-Diffusion Simulation in Laser Fusion Jinghong Li , Institute of Applied Physics and Computational Mathematics, Beijing, China
17:00-17:20	Electric field measurement in atmospheric pressure radiofrequency discharge in helium Zdeněk Navrátil , Faculty of Science, Masaryk University, Brno, Czech Republic	Radiation transport with partial coherence in optically thick plasmas Joël Rosato , Aix-Marseille University, France
17:20-17:40	Electric fields in kHz-driven plasma jets Ana Sobota , Eindhoven University of Technology, Eindhoven, Netherlands	Diagnosing Plasma in the Solar Atmosphere using Spectropolarimetry Ivan Milić , Max Planck Institute for Solar System Research, Gottingen, Germany

17:40-18:00	<i>Measurements of the electric field development in helium plasma jets</i> Goran Sretenović , Faculty of Physics, University of Belgrade, Belgrade, Serbia	<i>Diagnostics of plasma in ionospheric D-region by VLF radio waves</i> Aleksandra Nina , Institute of Physics, Belgrade, Serbia
18:00-19:30	Poster session (1) - Academic Club Posters: 1.16 – 1.30; 2.1 – 2.12; 3.1 – 3.18	

Wednesday 31 th August 2016		
SPIG 2016 (day 2)		
PL – Plenary lecture: 35+10 min	TL – Topical lecture: 25+5 min	PR – Progress Report: 15+5 min
Plenary Session 3, Hall A, Chair: Zoran Petrović		
09:00-09:45	<i>Influence of negative ions on the dynamics of electric gas discharges</i> Jurgen Meichsner , University of Greifswald, Greifswald, Germany	
09:45-10:30	<i>Small helium clusters: few atoms, many phenomena</i> Till Jahnke , Institute of Nuclear Physics, Goethe University, Frankfurt, Germany	
10:30-11:00	<i>Coffee break</i>	
Plenary Session 4, Hall A, Chair: Miloš Škorić		
11:00-11:45	<i>Plasma Processes for Life Sciences</i> Pietro Favia , University of Bari, Bari, Italy	
11:45-12:30	<i>Status and future prospects of laser fusion research at ILE, Osaka</i> Masa Murakami , Institute of Laser Engineering, Osaka University, Osaka, Japan	
12:30-14:30	<i>Lunch break</i>	
	Parallel Session A3 Chair: Vladimir Milosavljević	Parallel Session B3 Chair: Duško Borka
14:30-15:00	<i>Realistic surface coefficients for secondary electron emission and electron reflection in PIC/MCC simulations of capacitive RF plasmas</i> Felix Julian Schulze , West Virginia University, West Virginia, USA	<i>Investigating the reasons of variability in Si IV and C IV Broad Absorption Line troughs</i> Evangelia Lyratzi , University of Athens, Athens, Greece
15:00-15:30	<i>Positron scattering measurements from biologically relevant molecules</i> James Sullivan , The Australian National University, Canberra, Australia	<i>Recent progress on numerical simulation for high-energy density plasma (HEDP) at IAPCM</i> Li Baiwen , Institute of Applied Physics and Computational Mathematics, Beijing, China
15:30-15:50	<i>Electron interactions with doped neon clusters</i> Anita Ribar , University of Innsbruck, Innsbruck, Austria	<i>Interactions of moving charged particles with Multi-Walled Carbon Nanotubes (MWNTs)</i> Ying-Ying Zhang , Dalian University of Technology, Dalian, China
15:50-16:30	<i>Coffee break</i>	
	Parallel Session A4 Chair: Zoran Mijatović	Parallel Session B4 Chair: Milan Trtica
16:30-17:00	<i>Application of plasma for development of innovative functional textiles</i> Marija Gorjanc , University of Ljubljana, Ljubljana, Slovenia	<i>Interactions of charged particles with double-layer graphene</i> Vito Despoja , University of Zagreb, Zagreb, Croatia
17:00-17:20	<i>Electric field and discharge properties of single and multiple arrangement of Pulsed Atmospheric Plasma Streams</i> Sylvain Iseni , GREMI, University of Orleans, Orleans, France	<i>In-situ analysis of the pulsed laser deposition (PLD) fabricated LaAlO₃/SrTiO₃ heterostructures</i> Zoran Ristić , Vinča Institute of nuclear sciences, Belgrade, Serbia

17:20-17:40	<i>Experimental study of the influence of Debye shielding on the Stark shift of neutral He lines in dense plasmas</i> Teodora Gajo , Faculty of Sciences, University of Novi Sad, Serbia	<i>The role of spectroscopic diagnostics in studying laser-plasma interaction</i> Miloš Burger , Faculty of Physics, University of Belgrade Belgrade, Serbia
17:40-18:00	<i>Study of single pulse laser induced breakdown on target in water</i> Marijana Gavrilović , Institute of Physics Belgrade, Serbia	<i>Generation of highly luminescent color centers in nanocrystalline diamond by CVD method</i> Sara Toth , Institute for Solid State Physics and Optics, Budapest, Hungary
18:00-19:30	Poster session (2) - Academic Club Posters: 1.1 – 1.15; 3.19 – 3.36; 4.1 – 4.15	

Thursday 1 th September 2016		
SPIG 2016 (day 3)		
PL – Plenary lecture: 35+10 min	TL – Topical lecture: 25+5 min	PR – Progres Report: 15+5 min
Plenary Session 5, Hall A, Chair: Stevica Đurović		
09:00-09:45	<i>Convergent close-coupling theory for collisions in atomic and molecular physics</i> Igor Bray , Curtin University, Perth, Australia	
09:45-10:30	<i>Plasma-liquid interaction</i> Peter Bruggeman , University of Minnesota, Minneapolis, USA	
10:30-11:00	<i>Coffee break</i>	
Plenary Session 6, Hall A, Chair: Gordana Malović		
11:00-11:45	<i>Optical diagnostics in high enthalpy plasmas</i> Pascal Boubert , University of Rouen, Rouen, France	
11:45-12:30	<i>Line shapes in turbulent plasmas</i> Roland Stamm , Aix-Marseille University, Marseille, France	
12:30-14:30	<i>Lunch break / SPIG Committee meeting at 13h</i>	
	Parallel Session A5 Chair: Nenad Simonović	Parallel Session B5 Chair: Bratislav Obradović
14:30-15:00	<i>Classical Trajectory Monte Carlo method – „Watching quantum physics in real time</i> Károly Tökési , Institute for Nuclear Research, Hungarian Academy of Sciences (ATOMKI), Hungary	<i>Synthesis of quantum dots by atmospheric pressure plasmas and their integration in photovoltaic devices</i> Manuel Macias-Montero , Nanotechnology & Integrated Bio-Engineering Centre (NIBEC) University of Ulster, UK
15:00-15:30	<i>Molecular growth inside of (polycyclic aromatic) hydrocarbon clusters induced by ion collisions</i> Patrick Rousseau , CNRS-CIMAP, Caen, France	<i>Barrier discharges in CO₂ containing gases at atmospheric pressure</i> Ronny Brandenburg , Leibniz Institute for Plasma Science and Technology, Greifswald, Germany
15:30-15:50	<i>Morphological and structural properties of silver and gold nanoparticles obtained by ion implantation in high density polyethylene</i> Miloš Nenadović , Vinča Institute of Nuclear Sciences, Belgrade, Serbia	<i>Estimation of Radiation Dose Equivalent in Aqueous Solutions Subjected to Atmospheric Pressure Plasma Jets</i> Xu Han , University of Notre Dame, Notre Dame, Indiana, USA

15:50-16:30	<i>Coffee break and discussion</i>	
	Parallel Session A6 <i>Chair: Goran Poparić</i>	Parallel Session B6 <i>Chair: Bratislav Marinković</i>
16:30-17:00	<i>High Energy Photoemission as a Probe of the Electronic Structure of KCl Aqueous Solution</i> Denis Ceolin , Synchrotron SOLEIL, Gif sur Yvette, France	<i>FEBID for application in material science and solid state physics</i> Roland Sachser , Institute of Physics, Goethe University, Frankfurt, Germany
17:00-17:20	<i>Electron-induced reactions in clusters</i> Jaroslav Kočišek , Academy of Sciences of the Czech Republic, Prague, Czech Republic	<i>Numerical Simulation of Large Scale Laser Filamentation and Beam Smoothing for Inertial Confinement Fusion</i> Bin Li , IAPCM, CAEP, Beijing, China
17:20-17:40	<i>Low energy electron-induced fragmentation of nicotine and n methylpyrrolidine</i> Michal Ryszka , Radiation Laboratory, University of Notre Dame, Notre Dame, Indiana, USA	<i>Laser-matter interaction at the intensity frontier: on the path towards laboratory astrophysics</i> Marija Vranić , Institute of Plasmas and Nuclear Fusion, Lisbon, Portugal
17:40-18:00	<i>Single particle counting: Applications in Atomic and Molecular Physics</i> Achim Czasch , RoentDek, University of Frankfurt, Germany	
	Free time	
20:00	Gathering and transport to Sava quay	
20:30	Conference dinner and Closing	

Friday 2 nd September 2016	
10:00-17:00	Excursions (optional, info at registration desk)
17:00	Departure