

July 12-16, 2016



2016

ESCAMPIG XXIII

23rd Europhysics Conference on Atomic and Molecular Physics of Ionized Gases

Hotel Saffron****, Bratislava, Slovakia

Local Organizers

Department of Experimental Physics
Faculty of Mathematics, Physics and Informatics

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European Physical Society



Society for Plasma Research and Applications, Slovakia



Comenius University in Bratislava, Slovakia

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General Information

The ESCAMPIG (Europhysics Conference on Atomic and Molecular Physics of Ionized Gases) is an international biennial conference of the European Physical Society. The conference topics include basic and applied plasma research. The ESCAMPIG XXIII is organized jointly by the Society for Plasma Research and Applications and the Department of Experimental Physics, Comenius University in Bratislava.

ESCAMPIG XXIII on Facebook

Check out [ESCAMPIG Facebook](#) page for the latest information:





Conference Format

The conference includes plenary invited general and topical lectures, poster sessions, and workshops. Some contributed papers covering relevant issues will be selected by the International Scientific Committee and authors will be asked to give a short (hot-topic) oral presentation.

General Invited Speakers

- 1 Jaime DE URQUIJO (Mexico)
- 2 Nadja BALUCANI (Italy)
- 3 Annemie BOGAERTS (Belgium)
- 4 Christophe LAUX (France)
- 5 Alexander PIEL (Germany)
- 6 Jean-Michel POUVESLE (France)
- 2016 Crookes Prize winner:
- 7 Vasco GUERRA (Portugal)

Topical Invited Speakers

- 1 Paola DIOMEDE (The Netherlands)
- 2 Alejandro LUQUE (Spain)
- 3 Daniil MARINOV (France)
- 4 Radek PLAŠIL (Czech Republic)
- 5 Aleksandr SHISHPANOV (Russia)
- 6 Nikola ŠKORO (Serbia)
- 7 Ionut TOPALA (Romania)
- 8 Jörn WINTER (Germany)

Conference Topics

- 1 Atomic and molecular processes in plasmas
- 2 Transport phenomena, particle velocity distribution function
- 3 Physical basis of plasma chemistry
- 4 Plasma surface interaction (boundary layers, sheaths, surface processes)
- 5 Plasma diagnostics
- 6 Plasma and discharges: theory and simulation
- 7 Self-organization in plasmas, dusty plasmas
- 8 Upper atmospheric plasmas and space plasmas
- 9 Low pressure plasma sources
- 10 High pressure plasma sources
- 11 Plasma and gas flows
- 12 Laser produced plasmas

Workshops

Workshop on Breakthroughs in Elementary Processes in Plasma and Microdischarges

Chair: Marija Radmilovic-Radjenovic, University of Belgrade

Workshop on Electron Processes Active in Low-Temperature Plasmas

Chair: Nigel J. Mason, The Open University



ESCAMPIG XXIII PROGRAMME - MORNING

Tuesday, 12 th July	Wednesday, 13 th July	Thursday, 14 th July	Friday, 15 th July	Saturday, 16 th July
	<p>9:00 Opening</p>	<p>9:00 GL3 Nadja Balucani <i>The reactions of atomic oxygen with alkenes and alkynes: primary products, branching ratios and role of intersystem crossing</i></p>	<p>9:00 GL4 Christophe Laux <i>Transitions between the corona, glow, and spark regimes of Nanosecond Repetitively Pulsed discharges in air at atmospheric pressure</i></p>	<p>9:00 GL6 Vasco Guerra <i>Modeling of N₂-O₂-Ar-plasmas - volume and surface kinetics</i></p>
	<p>9:15 GL1 Annemie Bogaerts <i>Modeling of CO₂ plasmas</i></p>	<p>9:45 TL3 Paola Diomede <i>Modeling of tailored ion energy distributions for plasma processing applications</i></p>	<p>9:45 TL4 Ionut Topala <i>Atmospheric pressure plasma jets for life science</i></p>	<p>9:45 TL6 Radek Plasil <i>Experimental study of recombination of H₃⁺, H₂D⁺, HD₂⁺ and D₃⁺ ions in low temperature afterglow plasma in He/Ar/H₂/D₂ gas mixture</i></p>
	<p>10:00 TL1 Daniil Marinov <i>Plasma-surface interaction: Heterogeneous processes of atmospheric gases</i></p>	<p>10:15 HT4 Bart Klarenaar <i>Dynamics of the vibrational excitation in a pulsed CO₂ glow discharge</i></p>	<p>10:15 HT6 Carlos Pintassilgo <i>Modelling of the temporal evolution of the gas temperature in N₂ discharges</i></p>	<p>10:15 TL7 Shishpanov Alexander <i>Long tube ignition processes at low gas pressure</i></p>
	<p>10:30 HT1 Andrew Gibson <i>The role of surface interaction probabilities in reactive plasma modelling</i></p>	<p>10:30 HT5 Igor Adamovich <i>Electron Density Measurements in Nanosecond Pulse Discharges Near Liquid Water Surface</i></p>	<p>10:30 HT7 Thomas Wegner <i>Electronegativity during the E-H transition in inductively coupled RF oxygen discharges</i></p>	
	<p>10:45 Coffee Break</p>	<p>10:45 Coffee Break</p>	<p>10:45 Coffee Break</p>	<p>10:45 Coffee Break</p>
	<p>11:15 GL2 Alexander Piel <i>Dynamics of Dusty Plasmas</i></p>	<p>11:15 Poster Session II</p>	<p>11:15 GL5 Jaime de Urquijo <i>Progress in the validation/derivation of cross sections for ions and electrons in pure gases and gas mixtures of atmospheric and bioplasmas</i></p>	<p>11:15 GL7 Jean-Michel Pouvesle <i>Atmospheric Plasma Jets for Therapeutic Applications from the discharge to the treatments: issues and challenges</i></p>
	<p>12:00 TL2 Alejandro Luque <i>Beads and glows: the dynamics of streamer channels</i></p>		<p>12:00 TL5 Jörn Winter <i>Characterisation of microplasma jets by infrared absorption spectroscopy</i></p>	<p>12:00 TL8 Nikola Škoro <i>Heavy-particle collisions in water vapour discharges at low pressures</i></p>
	<p>12:30 HT2 Erwan Pannier <i>Measurements and Modeling of CO₂ Splitting Efficiency in High Pressure Nanosecond Repetitively Pulsed Discharges</i></p>		<p>12:30 HT8 L.C.J. Heijmans <i>Plasma Particle Lofting</i></p>	<p>12:30 HT10 Mate Vass <i>Experimental mapping of electron swarms</i></p>
	<p>12:45 HT3 Alexey Zotovich <i>Comprehensive study of CF₄/Ar and CHF₃/Ar DF CCP discharges</i></p>		<p>12:45 HT9 František Krčma <i>Novel plasma source for generation of discharge in liquids</i></p>	<p>12:45 HT11 Diego Mantovani <i>Plasma deposition of silver-DCL as robust antibacterial coatings for health applications</i></p>

ESCAMPIG XXIII PROGRAMME - AFTERNOON

Tuesday, 12 th July	Wednesday, 13 th July	Thursday, 14 th July	Friday, 15 th July	Saturday, 16 th July
13:00 Registration	13:00 Lunch	13:00 Lunch	13:00 Lunch	13:00 Closing
	14:15 Poster Session I	14:15 Excursion	14:15 Poster Session II	13:15 Lunch
	16:00 Coffee Break		16:00 Coffee Break	
	16:20 Workshop I Joao Santos Sousa <i>Electron properties in atmospheric pressure plasma jets determined by Thomson scattering</i>		16:20 Workshop II Nigel Mason	
	16:40 Workshop I Goran Sretenovic <i>Electric field diagnostics of helium plasma jets</i>		16:40 Workshop II Roberto Celiberto <i>Electron-impact processes in aerospace and fusion plasmas</i>	
	17:00 Workshop I Matej Klas <i>Characterization of microdischarges from DC up to radio frequency in compressed ambient air</i>		17:00 Workshop II Jean-Paul Booth <i>Vibrational excitation in O₂ and Cl₂ inductively-coupled plasmas and DC discharges</i>	
	17:20 Workshop I Mário Janda <i>Cross-correlation spectroscopy study of the Transient Spark discharge</i>		17:20 Workshop II Stephan Denifl <i>Dissociative electron attachment to molecules and clusters: current knowledge and future challenges</i>	
	17:40 Workshop I Georgi Trenchev <i>3D model of a reverse-vortex flow gliding arc plasmatron</i>		17:40 Workshop II Marián Danko <i>Electron induced emission of Balmer lines and Fulcher a bands of H₂</i>	
	18:00 Individual Dinner		18:00 Free Time	
19:00 Welcome Reception		19:00 Individual Dinner	19:30 Conference Dinner	



Travel to the Conference

By plane via Vienna airport

The bus connection between Vienna Airport and Bratislava is very good. To get to the conference site:

- take bus operated by [Slovak Lines Express](#), [Blaguss Slovakia](#), [ÖBB-Postbus](#), or [Regio Jet](#) company which departs every hour or half an hour (duration approximately 45-60 min; one way ticket ~ €5, return ticket ~ €8)
- if your bus stops at Novy Most (Most SNP) in Bratislava, buy 15 min ticket for €0.70 and take tram, visit www.imhd.sk for more information
- if your bus stops at AS Mlynske Nivy in Bratislava, buy 30 min ticket for €0.90 and take trolleybus, visit www.imhd.sk for more information

By plane via Bratislava airport

To get to the conference site:

- buy a 60 min ticket for €1.20 and take bus nr. 61 to Racianske myto (~20 min)
- change to tram nr. 3, 5 or 6 (direction Dubravka or Karlova Ves), hotel is one stop at Blumental, visit www.imhd.sk for more information

By train via Bratislava Hlavna Stanica

Bratislava Hlavna Stanica is the main railway station in the city with direct international connections to Prague, Berlin, Budapest and Vienna. Hotel Saffron is only ~15 min by walk from the station, but you can reach the hotel by public transport as well:

- buy a 15 min ticket for €0.70 and take tram or bus, visit www.imhd.sk for more information

By train via Bratislava Petralka

Many trains from Vienna arrive to Bratislava Petralka station. To reach the conference site:

- buy a 15 min ticket for €0.70 and take bus, visit the link www.imhd.sk for more information

By bus to AS Mlynske Nivy

Bratislava has one bus terminal in the city centre but without direct public transport connection to the hotel.

- buy a 30 min ticket for €0.90 and change to trolleybus, visit the link www.imhd.sk for more information

Taxi

In Bratislava there are many taxi companies and the cars does not use any unified colour but they always have a taxi sign. Often, it is significantly cheaper to phone order a taxi then to take one directly in the street. Especially the services of taxis waiting for clients at the airport or train stations are very expensive.

If you want to use taxi we recommend a phone order from companies such as:

- [Taxi4U](#) - +421 903 991 111
- [Radio Taxi](#) - +421 915 987 303
- [Easy Taxi](#) - +421 918 555 555 (flat rate €5 per one ride within the city; cannot be ordered in advance)

Bratislava

If you wish to find more information on sightseeing possibilities in Bratislava, visit:

www.visitbratislava.com

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