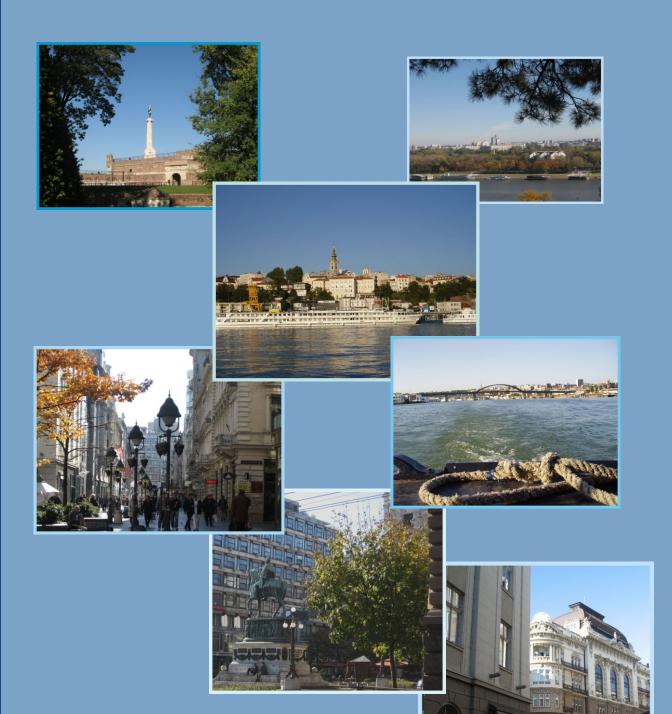


5th Conference on Elementary Processes in Atomic Systems

Belgrade, Serbia, June 21 - 25, 2011





GENERAL INFORMATION AND DEADLINES

You are cordially invited to participate in the 5^{TH} Conference on Elementary Processes in Atomic Systems (CEPAS 2011) to be held in Belgrade, Serbia, June 21 - 25, 2011 in Serbian Academy of Sciences and Arts. The CEPAS is held triennially to promote the growth and exchange of scientific information in the field of atomic physics and is focused mainly on the fundamental processes induced in atoms and molecules by interactions with charged particles and electromagnetic fields. The 5^{th} CEPAS is organized by the Institute of Physics Belgrade, Serbia, in collaboration with the Serbian Academy of Sciences and Arts and under the auspices of Ministry of Education and Science of Republic of Serbia.

CONI	FERENCE FEES CEPAS (CEAMPP included)	Early (before 15 May)	Late
	Members of European Physical Society	EUR 200	EUR 250
	Non-members	EUR 230	EUR 280
	Students	EUR 150	EUR 200
	Accompanying persons	EUR 60	EUR 60
		Only CEAMPP	
	All participants	EUR 40	EUR 50

Registration fee includes:

- -possibility to publish the proceedings in a regular issue of NIMB after peer review
- -conference proceedings and printed material,
- -welcome party
- -coffee breaks
- -conference dinner

DEADLINES

Early registration: 15 May 2011

Final conference programme: 6 June 2011

End of registration: 14 June 2011 NIMB paper submission: 30 June 2011



SCIENTIFIC PROGRAMME: Programme of the Conference will consist of Plenary Lectures (35 min), Topical Lectures (25 min) and poster presentations.

LIST OF SPEAKERS

Plenary lectures

Dr Laurent Nahon, SOLEIL synchrotron, France Imaging electron/ion coincidences for gas phase photoionization studies of chiral systems on the DESIRS beamline at SOLEIL

Prof. Yasuyuki Nagashima, Tokyo University of Science, Japan *Positronium negative ion experiments*

Prof. Paulo Limao-Vieira, Universidade Nova de Lisboa, Portugal Collisions with biomolecules: negative ion formation

Prof. Michael Schulz, Missouri University of Science and Technology, U.S.A. *Effect of projectile coherence on atomic fragmentation processes*

Prof. Jacques Baudon, Université Paris 13, France Inelastic transitions of atoms (and molecules) induced by van der Waals interaction with a surface

Dr Patrick Rousseau, Université de Caen Basse-Normandie, France Ions colliding with cold polycyclic aromatic hydrocarbon clusters

Prof. Petar Grujić, Institute of Physics Belgrade, Serbia Classical theory of atomic collisions - the first hundred years

Topical lectures

Dr Diego Arbó, Astronomia y Fisica del Espacio, Buenos Aires, Argentine Quantum interferences in atomic ionization by short laser pulses

Dr Paola Bolognesi, CNR-IMIP, Italy Photofragmentation of organic molecules of biological interest

Dr Shuhei Yoshida, Vienna University of Technology, Austria Probing the coherent evolution of wavepackets in high Rydberg states

Dr Juraj Országh, Comenius University Bratislava, Slovakia Excitation reactions studied by electron induced fluorescence method

Prof. Michael Brunger, The Flinders University, Adelaide, Australia *Cross sections for elastic electron scattering from iodine*

Dr Saša Dujko, Institute of Physics Belgrade, Serbia Spatially resolved transport properties for electrons in gases: Definition, interpretation and calculation

Dr Karel Houfek, Charles University in Prague, Czech Republic Resonant inelastic collisions of electrons with diatomic molecules

http://www.cepas2011.ipb.ac.rs



Dr James Sullivan, Atomic & Molecular Physics Laboratory (RSPE) Australian National University, Australia

Positron scattering from krypton

Prof. Raymond Moreh, Ben-Gurion University of the Negev, Israel On deviations from theory of electron-atom elastic scattering cross sections

Prof. Janina Kopyra, University of Podlasie, Poland *Electron driven processes in biomolecules*

Dr Alexandre Giuliani, SOLEIL France Photoionization study of trapped biopolymer ions in the gas phase

Dr Aleksandar Milosavljević, Institute of Physics Belgrade, Serbia Absolute differential cross sections for electron scattering from building blocks of biopolymers

Dr Alexander V. Yakubovich, Frankfurt Institute for Advanced Studies, Germany *Thermo-mechanical impact on biomolecules induced by heavy ions*

Dr Alexander Snegursky, Institute of Electron Physics, Ukraine Electron-impact and thermal fragmentation of the amino acid molecules: mechanisms and structure of the molecules

Dr Günter Weber, Helmholtz Institute Jena, Germany *Hard X-ray polarimetry in energetic ion-atom collisions*

Prof. Zoran Mišković, University of Waterloo, Canada *Ion interactions with graphene*

Dr Duško Borka, Vinča Institute of Nuclear Sciences, Serbia Channeling of charged particles through carbon nanotubes

Dr Réka Bereczky, ATOMKI, Hungary

The effect of temperature on guiding of slow highly charged ions through mesoscopic glass

Prof. Simona Cinta Pinzaru, Babes-Bolyai University, Romania Laser Raman scattering from biomolecules in nanoparticles-embedded tissue

Dr Stefan Denifl, University of Innsbruck, Austria Scattering from biomolecules in helium droplets

Dr Sam Eden, The Open University, UK *Multi-photon ionization of biomolecular clusters*

Dr Robert Ritter, Vienna University of Technology, Austria

Nanostructures formed on various surfaces due to the impact of individual slow highly charged ions

Prof. Lin-Fan Zhu, Hefei National Laboratory for Physical Science at Microscale, China Differential cross sections of some noble atoms studied by fast electron impact and inelastic x-ray scattering



PROCEEDING PAPERS (NIMB)

The Proceedings will be published as a special (but consecutively numbered) issue of the journal NIMB Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms.

http://www.elsevier.com/wps/find/journaldescription.cws home/505674/description#description

IMPORTANT NOTES:

- All submission of a paper implies that it represents original work not previously published and not being considered for publication elsewhere. All previously published material shall be fully acknowledged in the manuscript. If any material from third parties is incorporated in the manuscript, the Author(s) is (are) responsible, prior to the date of manuscript delivery, at their expense, to obtain permission in writing from each copyright holder of such material to use such material in the manuscript consistent with the terms of the rights granted pursuant to the copyright item at the end of this document.
- The <u>length</u> of papers in the CEPAS 2011 Proceedings is 4 (<u>four</u>) to 5 (<u>five</u>) NIMB printed pages for invited papers and 3 (<u>three</u>) to 4 (<u>four</u>) printed pages for regular contributed papers. Papers in the form of extended abstracts having a length of less than 3 pages should not be accepted for publication.
- The submitted manuscripts will be peer reviewed by referees. The Editorial board will give the final decision about publication.
- In order to submit the Proceedings paper, at least one of the authors should have paid the CEPAS 2011 registration fee. Please note that 1 (one) paid registration fee corresponds to 1 (one) possible submission.

TECHNICAL INFORMATION:

- The format, letter-type and lay-out will be the same as for the regular issues of the NIMB Journal. There are no page charges.
- The manuscripts will be final, clear and completely edited as to grammar and contents. **The language of the Proceedings will be English.**
- The technical quality of the manuscripts will meet the requirements as stated in the Guide for Authors and Peer Review Policy of the Journal. The authors will provide their illustration material ready for reproduction in print (original, sharp and contrasting photographs, original drawings or sharp glossy prints).
- Colour figures will appear on the web for free. If colour figures in the printed version are needed, an additional cost for reproduction of colour pages will apply as for regular papers in the Journal; prices available in the Journal's Guide for Authors or upon request. These costs will be borne by the Author(s) of a contribution containing one or more coloured pages. Elsevier production will inform them of the related cost and payment procedures.



PROCEEDING PAPERS (FU-PCT)

Part of Proceedings will be also published as a special (but consecutively numbered) issue of the Serbian national journal FACTA UNIVERSITATIS - SERIES PHYSICS, CHEMISTRY AND TECHNOLOGY

http://facta.junis.ni.ac.rs/phat/phat.html

The submission to FU-PCT is primarily indented for the CEAMPP-only contributions; however, all CEPAS/CEAMPP participants are welcome to submit their papers to FU-PCT, as well, if they consider this journal as more appropriate.

IMPORTANT NOTES:

- All submission of a paper implies that it represents original work not previously published and not being considered for publication elsewhere. All previously published material shall be fully acknowledged in the manuscript. If any material from third parties is incorporated in the manuscript, the Author(s) is (are) responsible, prior to the date of manuscript delivery, at their expense, to obtain permission in writing from each copyright holder of such material to use such material in the manuscript consistent with the terms of the rights granted pursuant to the copyright item at the end of this document.
- The minimum <u>length</u> of papers in the CEPAS 2011 Proceedings is <u>3 (three) FU-PCT</u> pages (in principle, there are no restrictions for the maximum number of pages). **Papers in the form of extended abstracts having a length of less than 3 pages should not be accepted for publication.**
- The submitted manuscripts will be peer reviewed by referees. The Editorial board will give the final decision about publication.
- In order to submit the Proceedings paper, at least one of the authors should have paid the CEAMPP 2011 or CEPAS/CEAMPP 2011 registration fee.

 Note that one registered participant can submit more than one proceedings paper in FU-PCT.

The technical details and procedure of submitting the full length papers to NIMB and FU-PCT will follow shortly.

POSTERS

The poster papers will be presented at CEAMPP and CEPAS 2011 poster sessions. Please take into account that poster size should be between formats A₁ (hight 84.1cm, width 59.4cm) and A₂ (hight 118.9cm, width 84.1cm).



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Virtual Atomic and Molecular Data Centre

The European Physical Journal



SATELLITE CONFERENCE

2nd National Conference on Electronic, Atomic, Molecular and Photonic Physics (CEAMPP 2011)

The 2nd National Conference on Electronic, Atomic, Molecular and Photonic Physics (CEAMPP 2011) is a satellite conference of the 5th Conference on Elementary Processes in Atomic Systems. CEAMPP 2011 will take place in Belgrade, Serbia, on June 21, 2011 in Serbian Academy of Sciences and Arts. The CEAMPP aims to bring together and support collaboration between different groups working basically in the various fields of atomic and molecular physics, so to induce new ideas and interdisciplinary research. The focus of the CEAMPP is put on young distinguished researchers, who will be invited to give the most of the lectures at the conference.

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TOPICS & PROGRAM

Conference Topics: Atomic and Molecular Structure and Properties, Collision Processes, Photon Interaction with Atoms and Molecules

The scope of the conference includes: electron and photon spectroscopy; elastic and inelastic scattering of electrons by isolated atoms and molecules; electron interaction with biomolecules and clusters; atomic processes with ions and surfaces; heavy particle collisions; laser beam interaction with atoms, molecules, ions and cold atoms; synchrotron radiation interaction with atoms, molecules and ions; laser spectroscopy diagnostic and applications; photon and electron optics and electron trace simulations; instrumentation etc.

LIST OF SPEAKERS:

Dr Nenad Bundaleski, Univesidade Nova de Lisboa, Portugal *Grazing incidence fast atom diffraction on different materials*

Dr Juraj Fedor, University of Fribourg, Switzerland

Dynamics of dissociative electron attachment to small molecules

Dr Maja Gruden Pavlovic, University of Belgrade, Serbia *Theoretical study of the Jahn-Teller effect*

Mr Srdjan Marjanovic, Institute of Physics, Serbia Numerical modeling of buffer gas positron traps

Dr Christophe Nicolas, SOLEIL Synhrotron, France *Soft X-ray spectroscopy of molecules and biomolecules*

Mr Milan Radonjic, Institute of Physics, Serbia Coherent effects in laser driven rubidium vapor

Dr Radomir Rankovic, University of Belgrade, Serbia Ab initio calculation of low-lying vibronic levels in the ground $X^2\Pi_u$ electronic state of dicyanoacetylene cation

Dr Miroslav Ristic, University of Belgrade, Serbia Excitation of molecules by low-energy electrons

Dr Vladimir Stojanovic, Institute of Physics, Serbia Monte Carlo modeling of Townsend discharges in hydrogen

Ms Sanja Tosic, Institute of Physics, Serbia Absolute cross sections for electron scattering from metal vapours

Mr Gideon Wormeester, Centrum Wiskunde & Informatica, The Netherlands *On the propagation of positive streamers in* N_2 : O_2 *mixtures*

GENERAL INFORMATION



Belgrade (Beograd-its name in Serbian translates to White City) is the capital and largest city of Serbia. With the population of around 1.7 milion people it is one of the largest cities in Southeastern Europe. Also, it is one of the oldest

cities in Europe. Belgrade's wider city area was the birthplace of the largest prehistoric culture of Europe, the Vinča culture, as early as the 6th millennium BC. Since ancient times Belgrade has been an important focal point for traffic, an intersection of the roads of Eastern and Western Europe.

The city is situated on the Balkan Peninsula at the confluence of the Sava and Danube rivers. The old city centre of Belgrade is called 'stari grad' and it is located at the South side of the Sava and at the West side of the Danube. The highest point in the old city centre is a hill overlooking both rivers. On top of this hill you will find Kalemegdan fortress which in the past was a strategic important fortress overlooking both rivers.

Belgrade is the capital of Serbian culture, education, science and economy. As a result of its tumultuous history, Belgrade has for centuries been home to many nationalities, with Serbs of the Orthodox Christian religion making up the majority of the population (90%). The official language is Serbian, while visitors from abroad can use English to communicate.



The Serbian Academy of Sciences and Arts is the highest scientific and art institution in the Republic of Serbia. It develops and encourages science, organizes and promotes basic and applied scientific research, encourages and promotes artistic activity. The Academy is an institution of special national importance. Its members are elected based on the results of their research or artistic work.

The name of the Academy was officially introduced by the Law of November 1, 1886, but it was not the actual beginning of the Academy's work in Serbia. The formal founding of the Serbian Royal Academy was only one of the turning points in the development of learned societies in Serbia. The Academy inherited the property of the Serbian Learned Society and continued its work. Finally, in 1892 when the two institutions merged the Academy accepted the members of the Serbian Learned Society as its own either regular or honorary members. The Serbian Learned Society (1864-1892) was, however, only the short-term extension of the suspended Society of Serbian Letters (1841-1864). Thus, the development of the Serbian Academy of Sciences and Arts cannot be presented without the learned societies that preceded it and from which it originated. ENDOWMENTS and FUNDS have also enormous importance for life and development of the Academy.

http://www.beograd.rs/cms/view.php?id=22

http://www.tob.rs/en/index.php

http://www.sanu.ac.rs/English/Index.aspx

TRAVEL AND TRANSPORTATION

Belgrade can be reached by plane, train, bus or car.



The airport "Nikola Tesla" is situated 18 km west of Belgrade. All major international airlines have regular service to Belgrade. Flight information can be obtained through the www.beg.aero website.

Transportation from the airport to the city centre:

Public transportation (GSP) - 72 bus line

Trip duration: 40 min.

Route: Zeleni venac – New Belgrade municipality – Students' City – Vojvođanska Street

Taxis and rental cars are also available at the airport.

Additional information about transport from the airport will be available on the official conference web page.



A well developed network of railways connects Belgrade with all parts of Europe, by daily, as well as overnight trains.

www.zeleznicesrbije.com



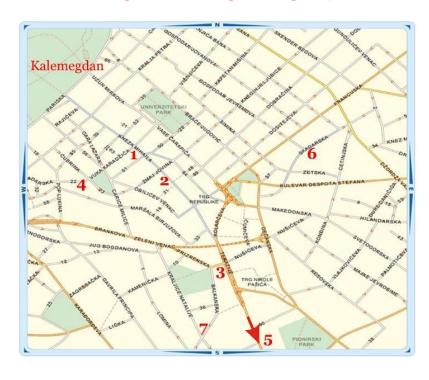
International bus lines operate to all neighbouring and most European countries. www.bas.rs



Belgrade is located at the intersection of the European E-70 and E-75 highways. Foreign drivers in Serbia are required to have a national driver's license, traffic permit and an insurance policy.

http://www.tob.rs/en/travel_in.php?id=4

BELGRADE - CITY CENTER



- Conference Hall, The Serbian Academy of Sciences and Arts Knez Mihailova St. 35
- 2 Hotel Art, Knez Mihailova St. 27
- 3 Hotel Moskva, Terazije St. 20
- 4 Hotel Palace, Topličin Venac St. 23
- 5 Hotel Park, Njegoševa St. 2
- 6 Restaurant "Ima dana", Skadarska St. 38
- 7 Hotel Prag, Kraljice Natalije St. 27