SECOND ANNOUNCEMENT

25th Summer School and International Symposium on the Physics of Ionized Gases

Donji Milanovac, Serbia, August 30 – September 3, 2010

GENERAL INFORMATION

The jubilar 25th Summer School and International Symposium on the Physics of Ionized Gases (SPIG) will be held in Donji Milanovac (National Park Djerđap, on the river Danube) in Serbia, from Monday, August 30 through Friday, September 3, 2010. The Conference will be organized by the Faculty of Physics, University of Belgrade.

email: spig2010@ff.bg.ac.rs
website: http://webhost.rcub.bg.ac.rs/~spig2010

Organized by:
Faculty of Physics,
University of Belgrade
Studentski Trg 12
Belgrade, Serbia

Sponsored by:
Ministry of Science and Technological Development, Republic of Serbia, and European Physical Society
SCIENTIFIC PROGRAM

Program of the Conference will consist of Invited Lectures (45 min), Topical Invited Lectures (30 min), Progress Reports (20 min) and Contributed Papers (oral and poster presentations). The Proceedings of Contributed Papers with abstracts of Invited Lectures and Progress Reports will be published and will be available at the Conference, while the Book of Invited Lectures and Progress Reports will be published after the Conference. Contributed Papers will be refereed and the Scientific Committee will make the final selection for oral and poster presentation. **DEADLINE** for receipt of Contributed papers (four pages) and abstracts of Invited Lectures and Progress Reports (one page) is May 15, 2010.

INVITED LECTURES (CONFIRMED LECTURES)

**J. Labat** (Serbia)
*SPIG from beginning to today*

**Section 1.**
**ATOMIC COLLISION PROCESSES**
*Oddur Ingolfsson* (Iceland)
*Comprehensive study on the metastable negative ion fragmentation of individual DNA components and larger oligonucleotides*
*Jan-Michael Rost* (Germany)
*Ultrafast and ultracold: Finite plasmas under extreme conditions*

**Section 2.**
**PARTICLE AND LASER BEAM INTERACTION WITH SOLIDS**
*Wolfgang Jäger* (Germany)
*Quantitative Transmission Electron Microscopy of Multilayer Coatings for X-ray Optics*
*Satoshi Hamaguchi, Osaka University* (Japan)
*Plasma surface interactions in material processing*
*Julien Fuchs* (France)
*Ultra-high intensity laser-solid interactions and applications*

**Section 3.**
**LOW TEMPERATURE PLASMAS**
*Yuri Lebedev* (Russia)
*Microwave Discharges: Generation and Diagnostics*
*Ulrich Kogelschatz* (Switzerland)
*Collective Phenomena in Volume and Surface Barrier Discharges*
Yuri Akishev (Russia)
Generation of atmospheric pressure non-thermal plasma by diffusive and constricted discharges in rest and flowing gases (air and nitrogen)

Pascal Chabert (France)
Modeling of chlorine inductive discharges

Section 4.
GENERAL PLASMAS
Akio Komori (Japan)
High Density and High Temperature Plasmas in Large Helical Device

Wolfram Kollatschny (Germany)
Line Profile Variations in selected Seyfert Galaxies

TOPICAL LECTURES (CONFIRMED LECTURES)

Section 1.
ATOMIC COLLISION PROCESSES
Dirk Peter van der Werf (UK)
Antimatter transport processes

Ronald McCarroll (France)
Isotopic effects in atomic and molecular reactions

Jiri Horacek (Czech Republic)
Calculation of resonances by means of analytical continuation and Pade approximation

Section 2.
PARTICLE AND LASER BEAM INTERACTION WITH SOLIDS
Kostya Ostrikov (Australia)
Nanostructures generated by plasmas

Nenad Bundaleski (Portugal)
Adsorption dynamics of water on the surface of TiO2 (110)

Section 3.
LOW TEMPERATURE PLASMAS
Ramon Pelaez (Spain)
Regularities and Irregularities of Stark Widths for the single ionized noble gases

Åshild Fredriksen (Norway)
On magnetic field geometry and its effects on double layers and flows in low-temperature plasmas

Miran Mozetić (Slovenia)
Application of highly non-equilibrium plasma for modification of biomedical samples

Lu-Jing Hou (Germany)
Numerical experiments in strongly coupled dusty plasmas
Elena Filimonova (Russia)
*Effect of gas mixture composition on tar removal process in a pulsed corona discharge reactor*

Leanid Simonchik (Belarus)
*Parametric Decay Instability Control by Non-Monochromatic Pumps*

Section 4.

**GENERAL PLASMAS**

Sylvie Sahal-Bréchot (France)
*Case studies on recent Stark broadening calculations and Stark-b database development*

Seiji Ishiguro (Japan)
*Multi-scale simulation for plasma science*

Andrey N. Klyucharev (Russia)
*Influence of inelastic atom-Rydberg atom collisional processes on kinetic and optical properties of low-temperature laboratory and astrophysical plasmas*

**PROGRES LECTURES (CONFIRMED LECTURES)**

Ana Banković (Serbia)
*Recent advances in studies of positron swarms in electric and magnetic fields in gases*

Milorad Šuvakov (Serbia)
*Nonlinear transport in gases, traps and surfaces*

Ivan Radović (Serbia)
*Interactions of ions with graphene*

Paul Tiwald (Austria)
*Theory of below-threshold kinetic electron emission*

Kari Niemi (UK)
*Optical diagnostics on cold atmospheric pressure plasmas*

Saša Gocić (Serbia)
*Electrical breakdown in nitrogen at low pressure - physical processes and statistics*

Suzana Stamenković (Serbia)
*New models and distribution of the electrical breakdown time delay in neon*

Bratislav Obradović (Serbia)
*Evolution of electric field in barrier discharge in helium*

Olivier Guitella (France)
*Influence of adsorbent materials on streamers propagation and consequences on by-products in air*

Zoran Simić (Serbia)
*Stark broadening of heavy metal spectral lines in atmospheres of chemically peculiar stars*

Dragana Ilić (Serbia)
*Physical properties of the Broad Line Region in Active Galactic Nuclei*
Evangelia Lyratzi (Greece)

Using the GR model to study the AGN spectra

Edi Bon (Serbia)

The disk emission in the Broad Line Region of Active Galactic Nuclei

Marko Mirković (Serbia)

Formation and decay of the Rydberg states of multiply charged ions interacting with solid surfaces

Vesna Borka Jovanović (Serbia)

Spectral indexes of radio loops

Milan S. Dimitrijević (Serbia)

European Virtual Atomic and Molecular Data Center – VAMDC

Ana Mančić (Serbia)

Generation and probing of warm dense matter (Al) created by laser-accelerated proton beam

Dejan Dimitrijević (Serbia)

Parametric dependence of two-plasmon decay in homogeneous plasma

Ivan Dojčinović (Serbia)

Plasma flow interaction with ITER divertor related surfaces

Aleksandar Milosavljević (Serbia)

Gas-phase photoionization of a protein

Branko Tomčik (Serbia)

Deposition and characterization of ultra thin diamond like carbon films

INSTRUCTION FOR AUTHORS

We kindly remind you to register (if you have not already done so) and send your Contributed papers (four pages) and Abstracts of Invited lectures and Progress Reports (one page). The DEADLINE for receipt of your contributions/abstracts is May 15, 2010. The macro and sample for preparation of the contributions/abstracts can be found on the Conference Web site and should be sent via Paper submission service on the website. The Contributed Papers will be refereed and the Scientific Committee will make the final selection for oral and poster presentation. The Proceedings of Contributed Papers with abstracts of Invited Lectures and Progress Reports will be published and will be available at the Conference, while the Book of Invited Lectures and Progress Reports will be published in the open access „Journal of Physics: Conference Series“ http://jpcs.iop.org/, published by IOP Publishing. The deadline for submission of general lectures (up to 12 pages), topical lectures (up to 10 pages) and progress reports (up to 8 pages) is August 29, 2010.
VENUE

The SPIG 2010 Conference will be held in Donji Milanovac, in the Hotel “Lepenski Vir” and the tourist conference hall in town’s center. (http://www.hotellepenskivir.co.rs/).

ACCOMMODATION

The main tourist establishment of the town Donji Milanovac is the hotel “Lepenski Vir”. Most of the conference activities will be held at this hotel. We have made a special arrangement of hotel services for the conference participants. Please visit the Conference Website for more details.

TRAVEL INFORMATION

Donji Milanovac is located in eastern Serbia, 188 km from Belgrade, at the river Danube. It can be reached by car via Požarevac. There are regular bus lines from Belgrade bus station, the last line leaves at 19:30, for timetable see (http://www.bas.rs/basweb_eng/redvoznje.asp).

There will be organized transportation for the participants of the conference from Belgrade. Belgrade can be reached by air, road and rail from major European cities. Please visit the Conference Web page for more details.

COMMITTEES

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<th>Scientific Committee</th>
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