



27th Summer School and International Symposium on the Physics of Ionized Gases

August 26-29, 2014, Belgrade, Serbia

CONTRIBUTED PAPERS &

**ABSTRACTS OF INVITED LECTURES,
TOPICAL INVITED LECTURES, PROGRESS
REPORTS AND WORKSHOP LECTURES**

Editors:

Dragana Marić

Aleksandar R. Milosavljević

Zoran Mijatović



Institute of Physics, Belgrade
University of Belgrade



Serbian Academy
of Sciences and Arts

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SPIG 2014

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Publishers:

Institute of Physics, Belgrade
Pregrevica 118, P. O. Box 68
11080 Belgrade, Serbia

Klett izdavačka kuća d.o.o.
Maršala Birjuzova 3-5, IV sprat
11000 Belgrade

Computer processing:

Sanja D. Tošić, Nikola Škoro and Miloš Ranković

Printed by

CICERO
Belgrade

Number of copies

300

ISBN 978-86-7762-600-6

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PREFACE

This Publication contains the Contributed papers and Abstracts of Invited lectures, Topical invited lectures, Progress reports and associated Workshop lectures that will be presented at the 27th Summer School and International Symposium of the Physics of Ionized Gases – SPIG 2014. The symposium will be held at the Serbian Academy of Sciences and Arts in Belgrade, Serbia, from August 26th – 29th, 2014. It is organized by the Institute of Physics Belgrade, University of Belgrade and Serbian Academy of Sciences and Arts, under the auspices and with the support of the Ministry of Education, Science and Technological Development, Republic of Serbia.

A rare virtue of the SPIG conference is that it covers a wide range of topics, bringing together leading scientists worldwide to present and discuss state-of-art research and the most recent applications, thus stimulating a modern approach of interdisciplinary science. The Invited lectures and Contributed papers are related to the following research fields: Atomic Collision Processes (Electron and Photon Interactions with Atomic Particles, Heavy Particle Collisions, Swarms and Transport Phenomena), Particle and Laser Beam Interactions with Solids (Atomic Collisions in Solids, Sputtering and Deposition, Laser and Plasma Interaction with Surfaces), Low Temperature Plasmas (Plasma Spectroscopy and other Diagnostic Methods, Gas Discharges, Plasma Applications and Devices) and General Plasmas (Fusion Plasmas, Astrophysical Plasmas and Collective Phenomena). Additionally, the 27th SPIG encompasses three workshops that are closely related to the conference topics: the workshop on Dissociative Electron Attachment (DEA), the workshop on X-ray Interaction with Biomolecules in Gas Phase (XiBiGP) and the 3rd International Workshop on Non-Equilibrium Processes (NonEqProc). Overall, this book includes abstracts of 74 invited lectures and 114 contributed papers.

The Editors would like to thank the members of the Scientific and Advisory Committees of SPIG 2014 for their efforts in proposing the invited lectures and review of the contributed papers, as well as the chairmen of the associated workshops for their efforts and help in organizing the workshops and selection of invited talks. We particularly acknowledge the support of all members of the Local Organizing Committee for their help in the organization of the Conference. We are deeply grateful to all sponsors of the conference: SOLEIL synchrotron, RoentDek Handels GmbH, Klett izdavačka kuća d.o.o., Springer (EPJD and EPJ TI), IoP Publishing (IoP Conference Series), DEA club, Austrijski kulturni forum (Kulturforum Belgrad), Institut français de Serbie and Balassi Institute – Collegium Hungaricum Beograd.

Finally, we would like to thank all the invited speakers and participants for taking part in 27th SPIG and to wish them a pleasant stay in Belgrade, inspired and valuable moments and a very successful conference.

Editors: Dragana Marić, Aleksandar R. Milosavljević and Zoran Mijatović
Belgrade, 2014

ACKNOWLEDGEMENT

27th SUMMER SCHOOL AND INTERNATIONAL SYMPOSIUM ON THE PHYSICS OF IONIZED GASES

is organized by the

**Institute of Physics, Belgrade
University of Belgrade
Serbia**

and

**Serbian Academy of
Sciences and Arts**

under the auspices and with the support of the

**Ministry of Education, Science and Technological Development,
Republic of Serbia**

with the technical support of the
PANACOMP - Zemlja Čuda d.o.o.

and sponsored by:

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- 1.1. Electron and Photon Interactions with Atomic Particles
- 1.2. Heavy Particle Collisions
- 1.3. Swarms and Transport Phenomena

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