

## PREFACE

This special issue of the Publication of Astronomical Observatory in Belgrade (PubAOB) contains the contributed papers and abstracts of Plenary Lectures, Topical Invited Lectures and Progress Reports that will be presented at the 30<sup>th</sup> International Symposium on the Physics of Ionized Gases (SPIG2020) which will be held from 24 to 28 August, 2020, in Šabac, Serbia. This period will be known as a very hard time, since COVID-19 pandemic affects all our activity, especially meetings. Therefore, the Organizing Committees of the SPIG2020 conference have carefully considered the current situation with the COVID-19 pandemic, and have decided that the conference should be organized as initially planned, but taking into account all the necessary measures and recommendations in order to make the safe environment for the SPIG2020 participants. We have faced additional challenges due to travel restrictions, therefore we introduced the virtual attendance for both Invited lecturers and participants for those who could not participate regularly. We expect to have virtual and regular participants, who will present 13 plenary invited talks, 17 topical invited 25 progress reports, 6 talks in honor of Ratko Janev and 60 posters.

The SPIG reflects the progress in the plasma physics and related fields. The conference has a long tradition, first meeting was organized in Belgrade in 1962. under the title: "1<sup>st</sup> Yugoslav Symposium on the Physics of Ionized Gases"(SPIG), and this SPIG2020 will start with the session dedicated to 30<sup>th</sup> jubilee of SPIG conferences. This issue of PubAOB presents new results in the fundamental and frontier theories and technology in the area of plasma physics. There are 58 abstracts of invited lectures and 63 contributed papers from mainly four disciplines connected with physics of ionized gasses which have strong interactions in numerous applications: Atomic Collision Processes, Particle and Laser Beam Interactions with Solids, Low Temperature Plasmas and General Plasmas. Also, SPIG2020 Special Session: "Atomic Collisions in Plasmas" is organized in honor of Ratko Janev (1939-2019), who gave a significant contribution to the series of SPIG

conferences in the past. The SPIG2020 is organized by the University of Belgrade – Faculty of Mathematics and Institute of Physics, with the support of the Astronomical Observatory in Belgrade.

Editors would like to thank the members of the Scientific and Advisory Committees of SPIG 2020 for their efforts in proposing the invited lectures and review of the contributed papers, as well as to thank the authors for their contribution and support to this Publication. We are grateful to the Serbian Ministry of Education, Science and Technological Development for their continuing help.

Editors: Luka Č. Popović, Duško Borka,  
Dragana Ilić and Vladimir Srećković

Belgrade, August 2020.