

ASTRONOMICAL INSTITUTE
SLOVAK ACADEMY OF SCIENCES

SPECIAL ISSUE
**ASTROPHYSICAL SPECTROSCOPY:
A&M DATA -
ATMOSPHERE**

Based on lectures presented at
IV Meeting on Astrophysical Spectroscopy:
A&M DATA - Atmosphere
Andrevlje, Serbia, May 30 - June 2, 2022

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SPECIAL ISSUE
**ASTROPHYSICAL SPECTROSCOPY:
A&M DATA - ATMOSPHERE**

Edited by

Vladimir A. Srećković, Milan S. Dimitrijević,
Nikola Cvetanović

Based on lectures presented at
**IV MEETING ON ASTROPHYSICAL
SPECTROSCOPY:
A&M DATA - ATMOSPHERE**

May 30 – June 2, 2022, Andrevlje, Serbia

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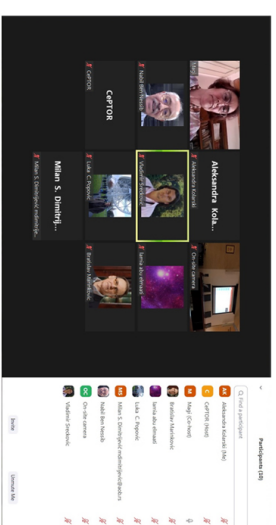
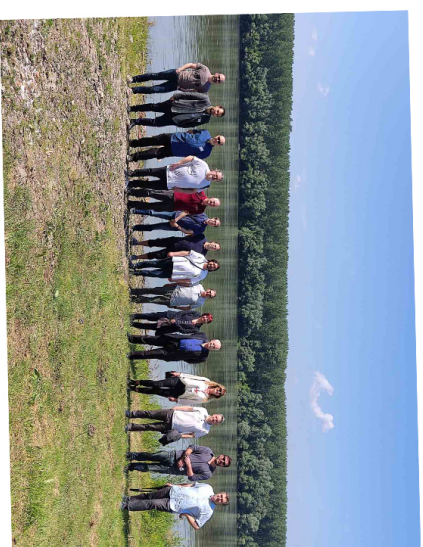
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IV Meeting on Astrophysical Spectroscopy - A&M DATA - Atmosphere



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PREFACE

This Special Issue on Astrophysical Spectroscopy: A&M DATA - Atmosphere contains papers which were presented at the IV Meeting on Astrophysical Spectroscopy: A&M DATA - Atmosphere. The conference took place at the village called Andrevlje at the foothill of the scenic Fruška Gora mountain, in the northern Serbia from May 30 to June 2, 2022. This conference is unique in that it brings together astronomers and physicists from Serbia and other countries to review the current state of research with the goal of improving our knowledge in this field and better understanding the importance of spectroscopy for future astrophysical investigations. Spectroscopy is considered to be an important tool for the study of plasmas in various fields: astronomy, fusion research, atmospheric research, applied physics and industry. Reliable atomic data from well verified sources are crucial for proper theoretical analysis, spectra synthesis and modelling of both laboratory and astrophysical radiation sources. For instance, for the modeling of stellar atmospheres and opacity calculations a large amount of atomic data is needed, since the chemical composition of stellar atmosphere is not known a priori. Consequently, astroinformatics and development of atomic data databases are important for stellar spectroscopy. Similarly, investigation of laboratory plasma via emission spectroscopy requires the knowledge of atomic and molecular constants, line widths etc. For all these purposes, the A&M Data meeting strives to make the connection between researches that provide the data, those that create and maintain databases, and the data users, both in theory and experiment. The program was divided into several sessions (special mini-projects) dedicated to spectroscopy and data in laboratory and general plasma. The IV Meeting on Astrophysical Spectroscopy was attended by 75 participants from 14 countries. They presented 17 invited talks, and 22 posters. In this Special Issue there are 12 papers. The organizers are grateful to the Ministry of Education, Science and Technological Development of the Republic of Serbia for general support. We thank the members of the scientific and local organizing committees for their help in preparing and running this conference. Finally, we owe an enormous thank you to all the referees for their hard work in peer-reviewing all contributions. Note here that all materials (programme, talks, presentations, photos, etc.) from this and previous meetings are available at <http://asspectro2022.ipb.ac.rs/>

V. A. Srećković, M. S. Dimitrijević & N. Cvetanović
the editors

