

ASTRONOMICAL INSTITUTE
SLOVAK ACADEMY OF SCIENCES

SPECIAL ISSUE
**SPECTRAL LINE SHAPES IN
ASTROPHYSICS AND RELATED
TOPICS**

Based on lectures presented at
12th SERBIAN CONFERENCE ON SPECTRAL LINE SHAPES
IN ASTROPHYSICS (12th SCSLSA)

Vrdnik, Serbia, June 3-7, 2019

CONTRIBUTIONS
OF THE ASTRONOMICAL OBSERVATORY
SKALNATÉ PLESO

• VOLUME I •

Number 1



January 2020

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Astronomical Institute of the Slovak Academy of Sciences
2020

ISSN: 1336-0337 (on-line version)

CODEN: CAOPF8

Editorial Office: Astronomical Institute of the Slovak Academy of Sciences
SK - 059 60 Tatranská Lomnica, The Slovak Republic

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the Astronomical Institute of the Slovak Academy of Sciences
on the URL address:

‘<http://www.astro.sk/caosp/>’

The journal is covered/indexed by:

Thomson Reuters services (ISI)

Science Citation Index Expanded (also known as SciSearch[®])
Journal Citation Reports/Science Edition

SCOPUS

SPECIAL ISSUE
**SPECTRAL LINE SHAPES IN
ASTROPHYSICS AND RELATED TOPICS**

Edited by

Dragana Ilić, Anđelka Kovačević,
Luka Č. Popović, Evgeny Stambulchik

Based on lectures presented at
**12th SERBIAN CONFERENCE
ON SPECTRAL LINE SHAPES IN ASTROPHYSICS**

June 3 – 7, 2019, Vrdnik, Serbia

Faculty of Mathematics, University of Belgrade

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PREFACE

This Special Issue on "Spectral Line Shapes in Astrophysics and Related Topics" contains papers which were presented at the "12th Serbian Conference on Spectral Line Shapes in Astrophysics – 12th SCSLSA". The conference took place in the village called Vrdnik at the foothill of the scenic Fruška Gora mountain in the northern Serbia from June 3 to June 7, 2019. The uniqueness of this conference is in bringing together astronomers and physicists from Serbia and elsewhere to review the present stage of research, with the aim of improving our knowledge in this field, and to better understand the significance of emission/absorption lines for future astrophysical investigations. The program was divided into several sessions dedicated to spectral lines in stars and extragalactic objects, and spectral lines in laboratory and general plasma. One Special session "Broad lines in AGNs: The physics of emission gas in the vicinity of super-massive black hole" was organized in memory of the life and work of dr Alla Ivanovna Shapovalova (who sadly passed away in January 2019).

The 12th SCSLSA conference was attended by 70 participants from 20 countries. They presented 19 invited talks, 33 progress reports and 28 posters. In this Special Issue there are 32 papers published which are divided into three large sections: I. Atomic parameters and databases; II. Broadening effects in spectral line shapes, III. Spectral line phenomena in stars and extragalactic objects.

The organizers are indebted to the Ministry of Education, Science and Technological Development, as well as to "Telekom Srbija" for general support. Moreover, we thank the administration and financial departments of the Faculty of Mathematics for enormous support and help, as well as to the co-organizers Astronomical Observatory Belgrade and Faculty of Science, University of Kragujevac. We thank the members of the SOC and LOC 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 SCSLSAs are available at <http://servo.aob.rs/eeditons/SCSLSA.php> through Serbian Virtual Observatory (<http://servo.aob.rs>).

D. Ilić, A. Kovačević, L. Č. Popović & E. Stambulchik
the editors

