Preface

This volume contains the papers accepted for the Student Research Forum and Poster section at the 41st Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2015), which was held January 24–29, 2015, in Pec pod Snězkou, in the Czech Republic.

SOFSEM (originally SOFtware SEMinar) is devoted to leading research and fosters cooperation among researchers and professionals from academia and industry in all areas of computer science. SOFSEM started in 1974 in the former Czechoslovakia as a local conference and winter school combination. The renowned invited speakers and the growing interest of the authors from abroad gradually changed SOFSEM in the mid-1990s to an international conference with proceedings published in the Springer LNCS series. SOFSEM became a well-established and fully international conference maintaining the best of its original winter school aspects, such as a higher number of invited talks and an in-depth coverage of novel research results in selected areas of computer science. SOFSEM 2015 was organized around the following four tracks:

– Foundations of Computer Science (chaired by Roger Wattenhofer)
– Software and Web Engineering (chaired by Tiziana Margaria)
– Data, Information, and Knowledge Engineering (chaired by Jaroslav Pokorný)
– Cryptography, Security, and Verification (chaired by Jean-Jacques Quisquater)

With its four tracks, SOFSEM 2015 covered the latest advances in research, both theoretical and applied, in leading areas of computer science. The SOFSEM 2015 Program Committee consisted of 69 international experts from 23 different countries, representing the track areas with outstanding expertise.

An integral part of SOFSEM 2015 was the traditional SOFSEM Student Research Forum (chaired by Roman Špánek), organized with the aim of presenting student projects on both the theory and practice of computer science, and to give the students feedback on the originality of their results. The papers presented at the Student Research Forum were published in separate local proceedings.

In response to the call for papers, SOFSEM 2015 received 101 submissions from 31 different countries. The submissions were distributed in the conference tracks as follows: 59 in the Foundations of Computer Science, 11 in the Software and Web Engineering, 17 in the Data, Information, and Knowledge Engineering, and 14 in the Cryptography, Security, and Verification. From these, 31 submissions fell in the student category.

In response to the call for posters, SOFSEM 2015 received next 10 submissions.

After a detailed reviewing process (using the EasyChair conference system for an electronic discussion), a careful selection procedure was carried out within
each track. Following strict criteria of quality and originality, 42 papers were selected for presentation, namely: 26 in the Foundations of Computer Science, four in the Software and Web Engineering, eight in the Data, Information, and Knowledge Engineering, and four in the Cryptography, Security, and Verification. Based on the recommendation of the chair of the Student Research Forum, 12 student papers were chosen for the SOFSEM 2015 Student Research Forum.

As editors of these proceedings, we are grateful to everyone who contributed to the scientific program of the conference, especially the invited speakers and all the authors of contributed papers. We also thank the authors for their prompt responses to our editorial requests. SOFSEM 2015 was the result of a considerable effort by many people. We would like to express our special thanks to:

- The members of the SOFSEM 2015 Program Committee and all external reviewers for their careful reviewing of the submissions
- Roman Špánek for his preparation and handling of the Student Research Forum
- The SOFSEM Steering Committee, chaired by Július Štuller, for guidance and support throughout the preparation of the conference
- The Organizing Committee, consisting of Martin Římnáč (Chair), Július Štuller, Pavel Tyl, Dana Kuželová and Milena Zeithamlová, for the generous support and preparation of all aspects of the conference
- Springer’s LNCS series for its continued support of the SOFSEM conferences
- CEUR WS for publishing the student research forum papers and posters online

We are greatly indebted to the Action M Agency, in particular Milena Zeithamlová, for the local arrangements of SOFSEM 2015. We thank the Institute of Computer Science of the Academy of Sciences of the Czech Republic in Prague, for its invaluable support of all aspects of SOFSEM 2015. Finally, we are very grateful for the financial support of the Czech Society for Cybernetics and Informatics.

January 2015

Giuseppe F. Italiano
Tiziana Margaria
Jaroslav Pokorný
Jean-Jacques Quisquater
Roger Wattenhofer
Roman Špánek
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