

## Preface

This volume contains the contributed papers selected for presentation at the Doctoral Student Research Forum at SOFSEM 2020, the 46<sup>th</sup> International Conference on Current Trends in Theory and Practice of Computer Science, which was held during January 20-23, 2020, in Limassol, Cyprus.

SOFSEM (originally SOFtware SEMinar) is an annual international winter conference devoted to the theory and practice of computer science. Its aim is to present the latest developments in research for professionals from academia and industry working in leading areas of computer science. While being a well-established and fully international conference, SOFSEM also maintains the best of its original Winter School aspects, such as a high number of invited talks, in-depth coverage of selected research areas, and ample opportunity to discuss and exchange new ideas. SOFSEM 2020 is organized around the following four tracks:

- Foundations of Computer Science (chair: Christos Kapoutsis),
- Foundations of Data Science and Engineering (chair: Herodotos Herodotou),
- Foundations of Software Engineering (chair: Alexander Chatzigeorgiou), and
- Foundations of Algorithmic Computational Biology (chairs: Ricardo Dondi and Florian Sikora).

Notably, the fourth track of the above takes place for the first time in the framework of SOFSEM and it is expected to be continued over the next years. With these tracks, SOFSEM 2020 covered the latest advances in both theoretical and applied research in leading areas of computer science.

An integral part of SOFSEM 2020 is the traditional Doctoral Student Research Forum (chair: Theodoros Tzouramanis) organized with the aim of giving students feedback on both the originality of their scientific results and on their work in progress. The papers presented at the Student Research Forum are available at the CEUR website (<http://ceur-ws.org>).

The SOFSEM 2020 Program Committee (PC) consisted of 95 international experts from 35 countries, representing the track areas with outstanding expertise. Another 72 external reviewers contributed as well. The committee undertook the task of assembling a scientific program for the SOFSEM audience by selecting from 125 submissions from 40 countries entered in the EasyChair system in response to the call for papers. The submissions were carefully reviewed with 2.9 reviews/paper, and thoroughly discussed. Following strict criteria of quality and originality, 40 papers were accepted for presentation as regular research papers, as well as 17 papers for presentation as short papers. These 57 papers were contributed by authors from 26 countries. Thus, the acceptance ratio for regular papers was 32%, plus another 14% for short papers. Additionally, based on the recommendation of the chair of the Student Research Forum, 11 papers were accepted for presentation in the Student Research Forum.

## II

As editors of these proceedings, we are grateful to everyone who contributed to the scientific program of the conference. We would like to thank the invited speakers:

- Mikołaj Bojańczyk (University of Warsaw, Poland),
- Ernesto Damiani (Khalifa University, UAE)
- Erol Gelenbe (Polish Academy of Sciences, Poland)
- Gunnar Klau (Heinrich Heine University Düsseldorf, Germany)
- Elias Koutsoupias (University of Oxford, UK)

for presenting their work to the audience of SOFSEM 2020. We thank all authors who submitted their papers for consideration. Many thanks are due to the PC members, and to all external referees, for their precise and detailed reviewing of the submissions. The work of the PC was carried out using the EasyChair system, and we gratefully acknowledge this contribution.

Special thanks are due to the SOFSEM Steering Committee headed by Július Štuller, for its support throughout the preparation of the conference. Finally, we want to thank Easyconferences.eu led by Petros Stratis, and the Deputy Ministry of Tourism of Cyprus for their services and support.

January 2020

Yannis Manolopoulos  
George-Angelos Papadopoulos  
Theodoros Tzouramanis

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## Table of Contents

### Foundations of Computer Science

AOBA: An Online Benchmark tool for Algorithms in stringology.....	1
<i>Ryu Wakimoto, Satoshi Kobayashi, Yuki Igarashi, Davaajav Jargalsaikhan, Diptarama Hendrian, Ryo Yoshinaka, and Ayumi Shinohara</i>	
Bit-Layers Text Encoding for Efficient Text Processing.....	13
<i>Domenico Cantone, Simone Faro, and Stefano Scafiti</i>	
Exploration of MSC Trees Using Genetic Algorithms.....	25
<i>Jakub Řada, Tomáš Musil, and Vít Fáběra</i>	
Fast-Insertion-Sort: a New Family of Efficient Variants of the Insertion-Sort Algorithm.....	37
<i>Simone Faro, Francesco Pio Marino, and Stefano Scafiti</i>	
Grammars and a Random Generator for Deterministic Chain Regular Expressions ..	49
<i>Xinyu Chu, Ping Lu, and Haiming Chen</i>	

### Foundations of Software Engineering

Early Prediction of Test Case Verdict with Word Embeddings vs. Bag-of-Words ....	61
<i>Khaled Al-Sabbagh, Mirosław Staron, Wilhelm Meding, and Mirosław Ochodek</i>	
Hybrid Analysis of BPEL Models with Grammars .....	73
<i>Erwin de Jager and Stijn de Gouw</i>	
PointNet with Spin Images .....	85
<i>Jakub Štrělský</i>	

### Foundations of Data Science and Engineering

An Extension of Linear-size Suffix Tries for Parameterized Strings.....	97
<i>Katsuhito Nakashima, Diptarama Hendrian, Ryo Yoshinaka, and Ayumi Shinohara</i>	
Data-Driven Powertrain Component Aging Prediction Using In-Vehicle Signals ...	109
<i>Andreas Sass, Enes Esatbeyoglu, and Till Iwwerks</i>	

**Foundations of Algorithmic Computational Biology**

A Graph-Based Tool to Embed the  $\pi$ -Calculus into a Computational  
DPO Framework..... 121  
*Jakob Lykke Andersen, Marc Hellmuth, Daniel Merkle, Nikolai Nøjgaard,  
and Marco Peressotti*