

## Preface

This volume contains the proceedings of the 10th International Conference on WORDS, which took place at Kiel University, Germany, September 14-17, 2015. WORDS is the main conference series devoted to the mathematical theory of words, and it takes place every two years. The first conference in the series was organized in 1997 in Rouen, France, with the events that followed taking place in Rouen, Palermo, Turku, Montreal, Marseille, Salerno, Prague, and Turku.

The main object in the scope of the conference, words, are finite or infinite sequences of symbols over a finite alphabet. They appear as natural and basic mathematical model in many areas, theoretical or applicative. Accordingly, the WORDS conference is open to both theoretical contributions related to combinatorial, algebraic, and algorithmic aspects of words, as well as to contributions presenting applications of the theory of words, for instance, in other fields of computer science, linguistics, biology and bioinformatics, or physics.

For the second time in the history of WORDS, after the 2013 edition, a refereed proceedings volume was published in Springer's Lecture Notes in Computer Science series. In addition, a local proceedings volume was published in the Kiel Computer Science Series of the Kiel University. Being a conference at the border between theoretical computer science and mathematics, WORDS tries to capture in its two proceedings volumes the characteristics of the conferences from both these worlds. While the Lecture Notes in Computer Science volume is dedicated to original contributions that fulfil the high quality standards required by a formal publication in computer science, the local proceedings volume allows, in the spirit of mathematics conferences, the publication of less formally prepared contributions, informing on current research and work in progress, surveying some areas connected to the core topics of WORDS, or presenting relevant previously published results. All the papers, the ones published in the Lecture Notes in Computer Science proceedings volume or the ones from the local proceedings volume, were refereed to high standards by the members of the Program Committee. Following the conference, a special issue of the Theoretical Computer Science journal will be edited.

We received 22 submissions, from 15 countries. From these, 14 papers were selected to be published in this refereed proceedings volume. In addition to the contributed talks, the conference program included six invited talks given by leading experts in the areas covered by the WORDS conference: Jörg Endrullis (Amsterdam), Markus Lohrey (Siegen), Jean Néraud (Rouen), Dominique Perrin (Paris), Michaël Rao (Lyon), Thomas Stoll (Nancy). Extended abstracts of these talks are included in this proceedings volume. WORDS 2015 was the tenth conference in the series, so we were extremely happy to welcome, as invited speaker at this anniversary event, Jean Néraud, one of the initiators of the series and the main organizer of the first two iterations of this conference. We thank all the invited speakers and all the authors of submitted papers for their contributions to the success of the conference.

We are grateful to the members of the Program Committee for their work that led to the selection of the contributed talks, and, implicitly, of the papers published in this volume. They were assisted in their task by a series of external referees, gratefully acknowledged below. The submission and reviewing process was performed via the Easychair system; we thank Andrej Voronkov for this system which facilitated the work of the Program Committee and the editors considerably. We express our gratitude to the representatives of Springer for their collaboration. Finally, we thank the Organizing Committee of WORDS 2015 for ensuring the smooth run of the conference.

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