## **Preface**

This proceedings volume contains the extended abstracts of the presentations made at the 11th edition of the conference GASCom 2018, to be held in Athens, Greece, from 18 to 20 June 2018. More specifically, the program of the conference consists of three invited talks, 16 contributed talks and 6 poster presentations.

The conference GASCom brings together researchers in combinatorics, algorithms, probabilities, and more generally mathematical computer science, around the theme of random and exhaustive generation of combinatorial structures, mostly considered from a theoretical point of view. In connection with this main theme, the conference is also interested in contributions in enumerative or analytic combinatorics, and interactions with other areas of mathematics, computer science, physics or biology. The conference is both interested in methods for random or exhaustive generation and in original results on combinatorial or algorithmic questions, whose solution has been made possible by an approach involving random or exhaustive generation. Among the main topics of the conference are the following:

- random and exhaustive generation of combinatorial objects,
- enumerative and analytic combinatorics,
- algorithmic aspects: analysis of algorithms, probabilistic algorithms,
- interactions: bio-informatics, combinatorics on words, tilings,... .

The contributed presentations has been selected by the Scientific Committee, composed by Christos Athanasiadis, Elena Barcucci, Srecko Brlek, Anna de Mier, Mark Dukes, Luca Ferrari, Andreas Kyriakoussis, Jeffrey Shallit and Vincent Vajnovszki. Each submission has been peer-reviewed by at least two blind referees. We wish to warmly thank the Scientific Committee, whose hard work has allowed as many researchers as possible to present their more recent results, in the spirit of GASCom.

Also, we express our heartfelt gratitude to the invited speakers, Charalambos Charalambides (National and Kapodistrian University of Athens), Maria Bras-Amorós (Universitat Rovira I Virgili, Tarragona, Spain) and Torsten Mütze (Technische Universitt Berlin, Germany) for their insightful lectures.

We also extend our thanks to all the members of the Organizing Committee, for their willingness and for all their efforts in making this conference possible.

Moreover we would like to thank the Department of Informatics and Telematics of Harokopio University and the Department of Mathematics and Informatics of the University of Florence for supporting GASCom 2018 conference. Finally, we thank Harokopio University for hosting the conference.

We are very happy to say that, like for the previous edition of GASCom, a perfect balance between scientific excellence and a friendly and inclusive atmosphere has been eventually obtained!

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In: L. Ferrari, M. Vamvakari (eds.): Proceedings of the GASCom 2018 Workshop, Athens, Greece, 18–20 June 2018, published at http://ceur-ws.org