2nd Symposium on Algorithmic Foundations of Dynamic Networks

SAND 2023, June 19–21, 2023, Pisa, Italy

Edited by

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Preface

This volume contains the papers that were presented at the 2nd Symposium on Algorithmic Foundations of Dynamic Networks, held in Pisa, Italy, June 19–21, 2023.

The Symposium on Algorithmic Foundations of Dynamic Networks (SAND) is a new conference whose objective is to become the primary venue for original research on fundamental aspects of computing in dynamic networks and computational dynamics, bringing together researchers from computer science and related areas. SAND is seeking important contributions from all viewpoints, including theory and practice, characterized by a marked algorithmic aspect and addressing or being motivated by the role of dynamics in computing. It welcomes both conceptual and technical contributions, as well as novel ideas and new problems that will inspire the community and facilitate the further growth of the area.

The program committee of SAND 2022 consisted of

- David Doty (University of California, Davis, USA, co-chair),
- Paul Spirakis (University of Liverpool, UK, co-chair),
- Mostefaoui Achour (Université de Nantes, France),
- Hagit Attiya (Technion, Israel),
- Petra Berenbrink (Universität Hamburg, Germany),
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- Jessica Enright (University of Glasgow, UK),
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- Othon Michail (University of Liverpool, UK),
- Slobodan Mitrović (University of California, Davis, USA),
- Sotiris Nikoletseas (Patras University, Greece),
- Thomas Nowak (Université Paris-Saclay, France),
- Giuseppe Prencipe (University of Pisa, Italy),
- Andrea Richa (Arizona State University, USA),
- Elad Schiller (Chalmers University of Technology, Sweden),
- Stefan Schmid (Technische Universität Berlin, Germany),
- George Skretas (Hasso Plattner Institute, Germany),
- Yuichi Sudo (Hosei University, Japan),
- Przemysław Uznański (University of Wrocław, Poland),
- Hirozumi Yamaguchi (Osaka University, Japan),
- Yukiko Yamauchi (Kyushu University, Japan).

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SAND 2023 received 20 submissions. The review process was double-blind and each paper was assigned to at least three members of the program committee with relevant expertise and eventually reviewed by them and/or by additional reviewers whenever needed. The program committee accepted 14 papers that cover a wide range of topics in the broad area of algorithmic foundations of dynamic networks and computational dynamics, including DNA self-assembly, dynamic networks and distributed algorithms, mobile computing and robotics, and temporal and dynamic graph algorithms. Keynote talks were given by distinguished researchers, to whom we are grateful: Fabian Kuhn (Albert-Ludwigs-Universit at), Kitty Meeks (University of Glasgow), and Nicola Santoro (Carleton University).

The program committee selected the paper "*When Should You Wait Before Updating? – Toward a Robustness Refinement*" by Swan Dubois, Laurent Feuilloley, Franck Petit and Mika el Rabie, for the Best Paper Award and the paper "*Snapshot Disjointness in Temporal Graphs*" by Allen Ibiapina and Ana Silva, for the Best Student Paper Award. We wish to thank the members of the various committees of SAND as well as its advisory board, for all the hard work that they have put and which has made it possible to set up a new conference. All have been supportive throughout. We are grateful to the program committee members and to the additional reviewers for devoting time and effort in order to come up with a strong conference program. A special thanks goes to the general chair of the organizing committee, Giuseppe Prencipe, and organizing committee members Silvia Filogna and Samuele Bonini. We are also indebted to the chair of the SAND steering committee, Paola Flocchini, for all her support, to Giuseppe Prencipe for handling all the financial aspects, and to George Skretas for helping on publicity matters.

Above all, we thank the authors for submitting their work to SAND 2023. We can assure the reader that in this volume they will find well-presented ideas and results that make substantial contributions to our knowledge on the role of dynamics in computing. We do believe that this volume will inspire further work and will contribute to the further growth of this exciting research area.

June, 2023 David Doty and Paul Spirakis

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