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Edited by

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Preface

This volume contains the extended abstracts selected for presentation at ESA 2019, the 27th European Symposium on Algorithms, held in Munich/Garching, Germany, on 9–11 September 2019, as part of ALGO 2019. The scope of ESA includes original, high-quality, theoretical and applied research on algorithms and data structures. Since 2002, it has had two tracks: the Design and Analysis Track (Track A), intended for papers on the design and mathematical analysis of algorithms, and the Engineering and Applications Track (Track B), for submissions dealing with real-world applications, engineering, and experimental analysis of algorithms. Information on past symposia, including locations and proceedings, is maintained at <http://esa-symposium.org>.

In response to the call for papers for ESA 2019, 329 papers were submitted, 276 for Track A and 53 for Track B (these are the counts after the removal of papers with invalid format and after withdrawals). Paper selection was based on originality, technical quality, exposition quality, and relevance. Each paper received at least three reviews. The program committees selected 83 papers for inclusion in the program, 70 from track A and 13 from track B, yielding an acceptance rate of about 25%.

The European Association for Theoretical Computer Science (EATCS) sponsored a best paper award and a best student paper award. A submission was eligible for the best student paper award if all authors were doctoral, master, or bachelor students at the time of submission. The best student paper award for track A was given to Cornelius Brand for the paper “Patching Colors with Tensors”. The best paper award for track A was given to Peyman Afshani, Rolf Fagerberg, David Hammer, Riko Jacob, Irina Kostitsyna, Ulrich Meyer, Manuel Penschuck and Nodari Sitchinava for the paper “Fragile Complexity of Comparison-Based Algorithms”. The best paper award for track B was given to Thomas Bläsius, Tobias Friedrich, Maximilian Katzmann, Ulrich Meyer, Manuel Penschuck and Christopher Weyand for the paper “Efficiently Generating Geometric Inhomogeneous and Hyperbolic Random Graphs”. No best student paper award has been given this year.

We wish to thank all the authors who submitted papers for consideration, the invited speakers, the members of the program committees for their hard work, and all the external reviewers who assisted the program committees in the evaluation process. Special thanks go to the local organizing committee, who helped us with the organization of the conference.

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