

38th International Symposium on Theoretical Aspects of Computer Science

STACS 2021, March 16–19, 2021, Saarbrücken, Germany
(Virtual Conference)

Edited by

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■ Preface

The International Symposium on Theoretical Aspects of Computer Science (STACS) conference series is an internationally leading forum for original research on theoretical aspects of computer science. Typical areas are:

- algorithms and data structures, including: design of parallel, distributed, approximation, parameterized and randomized algorithms; analysis of algorithms and combinatorics of data structures; computational geometry, cryptography, algorithmic learning theory, algorithmic game theory;
- automata and formal languages, including: algebraic and categorical methods, coding theory;
- complexity and computability, including: computational and structural complexity theory, parameterized complexity, randomness in computation;
- logic in computer science, including: finite model theory, database theory, semantics, specification verification, rewriting and deduction;
- current challenges, for example: natural computing, quantum computing, mobile and net computing, computational social choice.

STACS is held alternately in France and in Germany. This year's conference (taking place virtually from March 16 to 19 in Saarbrücken) is the 38th in the series. Previous meetings took place in Paris (1984), Saarbrücken (1985), Orsay (1986), Passau (1987), Bordeaux (1988), Paderborn (1989), Rouen (1990), Hamburg (1991), Cachan (1992), Würzburg (1993), Caen (1994), München (1995), Grenoble (1996), Lübeck (1997), Paris (1998), Trier (1999), Lille (2000), Dresden (2001), Antibes (2002), Berlin (2003), Montpellier (2004), Stuttgart (2005), Marseille (2006), Aachen (2007), Bordeaux (2008), Freiburg (2009), Nancy (2010), Dortmund (2011), Paris (2012), Kiel (2013), Lyon (2014), München (2015), Orléans (2016), Hannover (2017), Caen (2018), Berlin (2019), and Montpellier (2020).

The interest in STACS has remained at a very high level over the past years. The STACS 2021 call for papers led to 228 submissions with authors from 37 countries. Each paper was assigned to three program committee members who, at their discretion, asked external reviewers for reports. For the seventh time within the STACS conference series, there was also a rebuttal period during which authors could submit remarks to the PC concerning the reviews of their papers. In addition, STACS 2021 employed a lightweight double-blind reviewing process for the first time: submissions should not reveal the identity of the authors in any way. However, it was still possible for authors to disseminate their ideas or draft versions of their paper as they normally would, for instance by posting drafts on the web or giving talks on their results. The committee selected 56 papers during a four-week electronic meeting held in November and December 2020. This means an acceptance rate below 25%. As co-chairs of the program committee, we would like to sincerely thank all its members and the 408 external reviewers for their valuable work. In particular, there were intense and interesting discussions inside the PC committee. The very high quality of the submissions made the selection an extremely difficult task.

We would like to express our thanks to the three invited speakers: Peter Bürgisser (TU Berlin, Germany), Patrice Ossona de Mendez (CAMS, Paris, France), and Lidia Tendera (Opole University, Poland).

STACS 2020 in Montpellier was one of the last conferences that took place physically before the lockdown happened the next week. We very much hoped that STACS 2021 would be one of the first conferences that takes place physically again, with an option of



remote participation for participants who could not come to Saarbrücken due to the Covid-19 situation. Unfortunately, the overall Covid-19 situation got worse again in autumn and winter and therefore, this is not possible. Therefore, STACS 2021 will happen as a virtual conference as many other conferences before, with pre-recorded videos, short online presentations and discussions, and online social events.

We thank the Dagstuhl team for assisting us in the publication process and the final production of the proceedings. These proceedings contain extended abstracts of the accepted contributions and abstracts of the invited talks and the tutorials. The authors retain their rights and make their work available under a Creative Commons license. The proceedings are published electronically by Schloss Dagstuhl – Leibniz-Center for Informatics within their LIPIcs series. Finally we would like to thank Saarland University for its support.

Saarbrücken and Marseilles, March 2021

Markus Bläser and Benjamin Monmege

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