# 18th Scandinavian Symposium and Workshops on Algorithm Theory

SWAT 2022, June 27-29, 2022, Tórshavn, Faroe Islands

Artur Czumaj Qin Xin



#### **Editors**

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ACM Classification 2012

Theory of computation  $\rightarrow$  Design and analysis of algorithms

## ISBN 978-3-95977-236-5

Published online and open access by

Schloss Dagstuhl - Leibniz-Zentrum für Informatik GmbH, Dagstuhl Publishing, Saarbrücken/Wadern, Germany. Online available at https://www.dagstuhl.de/dagpub/978-3-95977-236-5.

Publication date June, 2022

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at https://portal.dnb.de.

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Digital Object Identifier: 10.4230/LIPIcs.SWAT.2022.0

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ISSN 1868-8969

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# Preface

The Scandinavian Symposium and Workshops on Algorithm Theory (SWAT, formerly the Scandinavian Workshop on Algorithm Theory) has been held every two years beginning in 1988. It alternates with its sister conference, the Algorithms and Data Structures Symposium (WADS), which is usually hosted in Canada. This year marks the 18th SWAT hosted on Faroe Islands.

In response to the call for papers, a total of 90 submissions were received. Each submission was assigned to at least three Program Committee, aided by external subreviewers. The committees decided to accept 30 papers for inclusion in the scientific program. The selection was made by the Program Committees based on originality, quality, and relevance to the topic of the conference. The quality of the manuscripts was very high indeed, and many deserving papers could not be selected.

The Program Committee selected the following paper for the **best student paper award** (for a paper that is solely authored by students): Daniel Bertschinger, Meghana M. Reddy and Enrico Mann. *Lions and Contamination: Monotone Clearings*.

Apart from the contributed talks, SWAT 2022 included invited presentations by Leszek Gąsieniec (University of Liverpool), David Peleg (Weizmann Institute of Science), and Mikkel Thorup (University of Copenhagen). This volume contains all the contributed papers presented at the conference, papers that accompany the invited talk of David Peleg and abstracts of the invited presentations of Leszek Gąsieniec and Mikkel Thorup.

We would like to thank the program committee and the subreviewers for their great effort. For all of the papers, extensive and detailed evaluations were submitted. The program committee consisted of

- Amir Abboud (Weizmann Institute of Science)
- Mikkel Abrahamsen (University of Copenhagen)
- Peyman Afshani (Aarhus University)
- Yossi Azar (Tel Aviv University)
- Alkida Balliu (Gran Sasso Science Institute)
- Soheil Behnezhad (Stanford University)
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- Shay Solomon (Tel Aviv University)
- Uli Wagner (IST Austria)
- Meirav Zehavi (Ben-Gurion University of the Negev)
- Rico Zenklusen (ETH Zurich)

This year's conference was organized by Qin Xin (University of the Faroe Islands) and his team consisting of Hans Blaasvær (financial chair; KT Húsið and University of the Faroe Islands), Olavur Ellefsen (Globe Tracker and University of the Faroe Islands), Jogvan Thomsen (Vinnustovnurin), and Michael Thomsen (Vinnustovnurin and University of the Faroe Islands).

The SWAT conference series is guided by a steering committee consisting of

- Lars Arge† (Aarhus University)
- Magnús M. Halldórsson (chair; Reykjavík University)
- Andrzej Lingas (Lund University)
- Jan Arne Telle (University of Bergen)
- Esko Ukkonen (University of Helsinki)

We wish to thank all authors who submitted extended abstracts for consideration, the Program Committees for their scholarly effort, and all the referees who assisted the Program Committees in the evaluation process. We are also grateful to all the support staff of the Organizing Committee for organizing SWAT 2022.

We would like to thank Magnús Halldórsson, the Chair of the SWAT Steering Committee, for his continuous support.

May 2022 Artur Czumaj Qin Xin