

# 19th Scandinavian Symposium on Algorithm Theory


SWAT 2024, June 12–14, 2024, Helsinki, Finland

Edited by

Hans L. Bodlaender



*Editors*

**Hans L. Bodlaender** 

Utrecht University, The Netherlands  
h.l.bodlaender@uu.nl

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## ■ Preface

This volume contains the proceedings of the 19th Scandinavian Symposium on Algorithm Theory, which takes place from June 12–14, 2024 in Helsinki, Finland. Since 1988, the Scandinavian Symposium on Algorithm Theory has been held every two years. The former name of the conference was the Scandinavian Workshop on Algorithm Theory, and the meetings with the former and current name use the acronym SWAT. SWAT alternates with sister conference WADS, the Algorithms and Data Structures Symposium. SWAT is usually hosted in a Nordic country, and WADS is usually hosted in Canada.

In total, 102 papers were submitted to SWAT 2024. The papers were assigned to at least three members of the Program Committee. Each paper received at least three reviews, by members of the Program Committee or external reviewers. The Program Committee selected 40 papers for presentation at the conference and publication in these proceedings. This selection was based on originality, quality, and relevance to the topic of the conference. The average quality of the submitted papers was very high, and even with the larger number of accepted papers in the program of SWAT 2024, many excellent papers could not be selected.

In addition to the selected papers, SWAT 2024 has three invited lectures by distinguished scientists:

- Karen Aardal (Technical University Delft, the Netherlands): Machine-learning augmented enumeration for integer optimization, and beyond.
- Greg Bodwin (University of Michigan, US): Turán-type problems in Theoretical Computer Science.
- Michał Pilipczuk (University of Warsaw, Poland): Well-structured graphs through the lens of logic.

Many thanks are due to the members of the Program Committee and all subreviewers for their hard work to evaluate and discuss the submitted papers. The members of the Program Committee were:

- Anders Aamand, MIT, US,
- Ahmad Biniiaz, University of Windsor, Canada,
- Hans Bodlaender, Utrecht University, the Netherlands (chair),
- Flavia Bonomo, University of Buenos Aires, Argentina,
- Kevin Buchin, Technical University Dortmund, Germany,
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- Tandy Warnow, University of Illinois at Urbana - Champaign, US,
- Prudence Wong, University of Liverpool, UK,
- Meirav Zehavi, Ben Gurion University, Israel.

The organization of SWAT 2024 was done by the Local Organization committee, consisting of:

- Jara Uitto, Aalto University, Finland,
- Mikko Koivisto, University of Helsinki, Finland,
- Sándor Kisfaludi-Bak, Aalto University, Finland, and
- Alexandru Paler, Aalto University, Finland.

The series of SWAT conferences is guided by the SWAT Steering Committee. The members of the Steering Committee are:


- Per Austrin, KTH, Sweden (chair),
- Fedor Fomin, University of Bergen, Norway,
- Inge Li Gørtz, Technical University of Denmark, Denmark,
- Magnús Halldórsson, Reykjavik University, Iceland,
- Jukka Suomela, Aalto University, Finland.

I want to thank all authors who submitted a manuscript to the conference, all members of the Program Committee and all subreferees for all the work in the evaluation and selection of papers, the Local Organizing Committee for their great efforts to organize the conference with all its different aspects, the SC chair Per Austrin for helpful advice and support, and the three invited speakers Karen Aardal, Greg Bodwin and Michał Pilipczuk for their willingness to give an invited lecture at SWAT 2024.

Hans Bodlaender, April 2024


## ■ List of Authors


Akanksha Agrawal  (1)  
Indian Institute of Technology Madras,  
Chennai, India


Stav Ashur  (2)  
Department of Computer Science,  
University of Illinois, Urbana, IL, USA

Lora Bailey (3)  
Department of Mathematics, Grand Valley State  
University, Allendale, MI, USA

Girish Balakrishnan (4)  
Indian Institute of Technology Madras,  
Chennai, India


Robert D. Barish  (5)  
Division of Medical Data Informatics, Human  
Genome Center, Institute of Medical Science,  
University of Tokyo, Japan

Cristina Bazgan  (6)  
Université Paris-Dauphine, PSL Research  
University, CNRS, UMR 7243, LAMSADE,  
Paris, France

Jesse Beisegel  (7)  
Institute of Mathematics, Brandenburg  
University of Technology, Cottbus, Germany

Matthias Bentert (8)  
University of Bergen, Norway


Ioana O. Bercea  (9)  
KTH Royal Institute of Technology,  
Stockholm, Sweden

Magnus Berg  (10)  
University of Southern Denmark,  
Odense, Denmark

Gaétan Berthe  (11)  
LIRMM, Université de Montpellier, CNRS,  
Montpellier, France

Sayan Bhattacharya (12)  
University of Warwick, UK


Therese Biedl (13)  
David R. Cheriton School of Computer Science,  
University of Waterloo, Canada

Philip Bille  (14)  
Technical University of Denmark,  
Lyngby, Denmark

Heather Smith Blake (3)  
Department of Mathematics and Computer  
Science, Davidson College, NC, USA

Lotte Blank  (15)  
University of Bonn, Germany

Prosenjit Bose (13)  
School of Computer Science, Carleton University,  
Ottawa, Canada

Marin Bougeret  (11)  
LIRMM, Université de Montpellier, CNRS,  
Montpellier, France


Joan Boyar (16)  
Department of Mathematics and Computer  
Science, University of Southern Denmark,  
Odense, Denmark


Gerth Støtting Brodal  (17)  
Aarhus University, Denmark

Josh Brunner (34)  
Massachusetts Institute of Technology,  
Cambridge, MA, USA

Kevin Buchin (18)  
Faculty of Computer Science,  
TU Dortmund University, Germany


Maike Buchin (18)  
Faculty of Computer Science,  
Ruhr University Bochum, Germany


Benjamin Merlin Bumpus  (19)  
University of Florida, Gainesville, FL, USA

Sergio Cabello  (1)  
Faculty of Mathematics and Physics, University  
of Ljubljana, Slovenia;  
Institute of Mathematics, Physics and  
Mechanics, Ljubljana, Slovenia

Sankardeep Chakraborty (4)  
University of Tokyo, Japan

Kenneth C. Cheung (34)  
NASA Ames Research Center,  
Moffett Field, CA, USA

Nina Chiarelli  (7)  
FAMNIT and IAM, University of Primorska,  
Koper, Slovenia

Aleksander B. G. Christiansen  (20)  
Technical University of Denmark,  
Lyngby, Denmark

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- Garner Cochran (3)  
Department of Mathematics and Computer  
Science, Berry College, Mount Berry, GA, USA
- Martín Costa (12)  
University of Warwick, UK
- Alex Crane  (8)  
University of Utah, Salt Lake City, UT, USA
- Seyed Parsa Darbouy (21)  
Department of Computing Science,  
University of Alberta, Canada
- Erik D. Demaine  (34)  
Massachusetts Institute of Technology,  
Cambridge, MA, USA
- Jenny Diomidova (34)  
Massachusetts Institute of Technology,  
Cambridge, MA, USA
- Pål Grønås Drange  (8)  
University of Bergen, Norway
- Anne Driemel  (15)  
University of Bonn, Germany
- Fedor V. Fomin  (22)  
University of Bergen, Norway
- Nathan Fox (3)  
Department of Quantitative Sciences,  
Canisius University, Buffalo, NY, USA
- Zachary Friggstad  (21, 23)  
Department of Computing Science,  
University of Alberta, Canada
- Auguste H. Gezalyan  (25)  
Department of Computer Science, University of  
Maryland, College Park, MD, USA
- Petr A. Golovach  (22)  
University of Bergen, Norway
- Daniel Gonçalves  (11)  
LIRMM, Université de Montpellier, CNRS,  
Montpellier, France
- Christine Gregg (34)  
NASA Ames Research Center,  
Moffett Field, CA, USA
- Joachim Gudmundsson (18)  
Faculty of Engineering,  
The University of Sydney, Australia
- Bernd Gärtner (24)  
Department of Computer Science,  
ETH Zürich, Switzerland
- Sariel Har-Peled  (2, 26)  
Department of Computer Science,  
University of Illinois, Urbana, IL, USA
- Della H. Hendrickson (34)  
Massachusetts Institute of Technology,  
Cambridge, MA, USA
- Jakob Bæk Tejs Houen  (9)  
BARC, University of Copenhagen, Denmark
- Kien C. Huynh  (27)  
Linköping University, Sweden
- Bart M. P. Jansen  (19, 28)  
Eindhoven University of Technology,  
The Netherlands
- Matthew Johnson  (29)  
Durham University, UK
- Naonori Kakimura  (30)  
Department of Mathematics, Keio University,  
Yokohama, Japan
- Vishwas Kalani (24)  
Department of Computer Science and  
Engineering, I.I.T. Delhi, India
- Shahin Kamali  (10, 16)  
York University, Toronto, Canada
- Michael Kaufmann  (1)  
Department of Computer Science,  
Tübingen University, Germany
- Soo H. Kim (25)  
Wellesley College, MA, USA
- Tuukka Korhonen  (22)  
University of Bergen, Norway
- Irina Kostitsyna  (31, 34)  
TU Eindhoven, The Netherlands;  
KBR at NASA Ames Research Center,  
Moffett Field, CA, USA
- Ekkehard Köhler (7)  
Institute of Mathematics, Brandenburg  
University of Technology, Cottbus, Germany
- Kim S. Larsen (16)  
Department of Mathematics and Computer  
Science, University of Southern Denmark,  
Odense, Denmark
- Ali Mohammad Lavasani (16)  
Department of CSSE, Concordia University,  
Montreal, Canada

- Michael Levet (3, 32)  
Department of Computer Science,  
College of Charleston, SC, USA
- Yaqiao Li (16)  
Department of CSSE, Concordia University,  
Montreal, Canada
- Carlos Lopez (25)  
Montgomery Blair High School,  
Silver Spring, MD, USA
- Anand Louis  (33)  
Indian Institute of Science, Bangalore, India
- Meghana M. Reddy  (24)  
Department of Computer Science,  
ETH Zürich, Switzerland
- Reem Mahmoud (3)  
Department of Computer Science, Virginia  
Commonwealth University, Richmond, VA, USA
- Barnaby Martin  (29)  
Durham University, UK
- Wouter Meulemans (24)  
Department of Mathematics and Computer  
Science, TU Eindhoven, The Netherlands
- Martin Milanič  (7)  
FAMNIT and IAM, University of Primorska,  
Koper, Slovenia
- Babak Miraftab (13)  
School of Computer Science,  
Carleton University, Ottawa, Canada
- Joseph S. B. Mitchell  (27)  
Stony Brook University, NY, USA
- Daniel Mock  (35)  
RWTH Aachen University, Germany
- David M. Mount  (25)  
Department of Computer Science, University of  
Maryland, College Park, MD, USA
- Peter Muršič  (7)  
FAMNIT, University of Primorska,  
Koper, Slovenia
- N. S. Narayanaswamy (4)  
Indian Institute of Technology Madras,  
Chennai, India
- Ofer Neiman (36)  
Ben-Gurion University of the Negev,  
Beer-Sheva, Israel
- Yakov Nekrich  (14)  
Michigan Technological University,  
Houghton, MI, US
- Linh Nguyen  (27)  
Stony Brook University, NY, USA
- André Nichterlein  (6)  
Algorithmics and Computational Complexity,  
Technische Universität Berlin, Germany
- Tim Ophelders  (31)  
Utrecht University, The Netherlands;  
TU Eindhoven, The Netherlands
- Christian Ortlieb (37)  
Institute of Computer Science,  
University of Rostock, Germany
- Yota Otachi  (38)  
Graduate School of Informatics,  
Nagoya University, Japan
- Rasmus Pagh  (9)  
BARC, University of Copenhagen, Denmark
- Sukanya Pandey  (29)  
Utrecht University, The Netherlands
- Denis Pankratov (16)  
Department of CSSE, Concordia University,  
Montreal, Canada
- Nadav Panski (12)  
Tel Aviv University, Israel
- Irene Parada  (31)  
Universitat Politècnica de Catalunya,  
Barcelona, Spain
- Rameesh Paul  (33)  
Indian Institute of Science, Bangalore, India
- Daniël Paulusma  (29)  
Durham University, UK
- Tom Peters  (31)  
TU Eindhoven, The Netherlands
- Solon P. Pissis  (14)  
CWI, Amsterdam, The Netherlands;  
Vrije Universiteit, Amsterdam, The Netherlands
- Lukas Plätz (18)  
Faculty of Computer Science,  
Ruhr University Bochum, Germany
- Valentin Polishchuk  (27)  
Linköping University, Sweden
- Arka Ray  (33)  
Indian Institute of Science, Bangalore, India

- Jean-Florent Raymond  (11)  
Univ Lyon, EnsL, CNRS, LIP, F-69342,  
Lyon Cedex 07, France
- Felix Reidl  (8)  
Birkbeck, University of London, UK
- Eliot W. Robson  (26)  
Department of Computer Science,  
University of Illinois, Urbana, IL, USA
- Benjamin Rockel-Wolff  (39)  
Research Institute for Discrete Mathematics,  
University of Bonn, Germany
- Puck Rombach (32)  
Department of Mathematics and Statistics,  
University of Vermont, Burlington, VT, USA
- Peter Rossmanith  (35)  
RWTH Aachen University, Germany
- Eva Rotenberg  (20)  
Technical University of Denmark,  
Lyngby, Denmark
- Kunihiko Sadakane (4)  
University of Tokyo, Japan
- Mohammad R. Salavatipour  (40)  
Department of Computer Science,  
University of Alberta, Edmonton, Canada
- Saket Saurabh (1, 22)  
Institute of Mathematical Sciences, HBNI,  
Chennai, India
- Robert Scheffler  (7)  
Institute of Mathematics, Brandenburg  
University of Technology, Cottbus, Germany
- Ildikó Schlotter  (30)  
HUN-REN Centre for Economic and Regional  
Studies, Budapest, Hungary;  
Budapest University of Technology and  
Economics, Hungary
- Jens M. Schmidt  (37)  
Institute of Computer Science,  
University of Rostock, Germany
- Idan Shabat (36)  
Ben-Gurion University of the Negev,  
Beer-Sheva, Israel
- Roohani Sharma  (1)  
University of Bergen, Norway
- Tetsuo Shibuya  (5)  
Division of Medical Data Informatics, Human  
Genome Center, Institute of Medical Science,  
University of Tokyo, Japan
- Nicholas Sieger (32)  
Department of Mathematics, University of  
California San Diego, La Jolla, CA, USA
- Inne Singgih (3)  
Department of Mathematical Sciences,  
University of Cincinnati, OH, USA
- Daniel Skora (25)  
Indiana University, Bloomington, IN, USA
- Siani Smith  (29)  
University of Bristol, UK;  
Heilbronn Institute for Mathematical Research,  
Bristol, UK
- Shay Solomon (12)  
Tel Aviv University, Israel
- Willem Sonke  (31)  
TU Eindhoven, The Netherlands
- Bettina Speckmann  (24, 31)  
Department of Mathematics and Computer  
Science, TU Eindhoven, The Netherlands
- Grace Stadnyk (3)  
Department of Mathematics, Furman University,  
Greenville, SC, USA
- Zofia Stefankovic (25)  
Stony Brook University, Stony Brook, NY, USA
- Miloš Stojaković  (24)  
Department of Mathematics and Informatics,  
Faculty of Sciences, University of Novi Sad,  
Serbia
- Blair D. Sullivan  (8)  
University of Utah, Salt Lake City, UT, USA
- Hao Sun (23)  
University of Alberta, Canada
- Akira Suzuki  (38)  
Graduate School of Information Sciences,  
Tohoku University, Sendai, Japan
- Yuma Tamura  (38)  
Graduate School of Information Sciences,  
Tohoku University, Sendai, Japan
- MIT-NASA Space Robots Team (34)  
Massachusetts Institute of Technology,  
Cambridge, MA, USA;  
NASA Ames Research Center,  
Moffett Field, CA, USA
- Lea Thiel (18)  
Faculty of Computer Science,  
Ruhr University Bochum, Germany


Lijiangnan Tian  (40)  
Department of Computer Science,  
University of Alberta, Edmonton, Canada

Yushi Uno (1)  
Graduate School of Informatics, Osaka  
Metropolitan University, Sakai, Japan

Erik Jan van Leeuwen  (29)  
Utrecht University, The Netherlands

Sofia Vazquez Alferez  (6)  
Université Paris-Dauphine, PSL Research  
University, CNRS, UMR 7243, LAMSADE,  
Paris, France

Jaime Venne (19)  
Eindhoven University of Technology,  
The Netherlands

Ruben F. A. Verhaegh  (28)  
Eindhoven University of Technology,  
The Netherlands

Juliette Vlieghe  (20)  
Technical University of Denmark,  
Lyngby, Denmark

Alexander Wiedemann (3)  
Department of Mathematics,  
Randolph-Macon College, Ashland, VA, USA

Sebastian Wild  (17)  
University of Liverpool, UK

Alexander Wolff  (1)  
Universität Würzburg, Germany

Sampson Wong (18)  
Department of Computer Science,  
University of Copenhagen, Denmark

