

# **42nd International Symposium on Theoretical Aspects of Computer Science**

**STACS 2025, March 4–7, 2025, Jena, Germany**

Edited by

**Olaf Beyersdorff  
Michał Pilipczuk  
Elaine Pimentel  
Nguyễn Kim Thắng**



*Editors*

**Olaf Beyersdorff** 

Friedrich Schiller University Jena, Germany  
olaf.beyersdorff@uni-jena.de

**Michał Pilipczuk** 

University of Warsaw, Poland  
michal.pilipczuk@mimuw.edu.pl

**Elaine Pimentel** 

University College London, UK  
e.pimentel@ucl.ac.uk

**Nguyễn Kim Thắng** 

Grenoble INP, Université Grenoble-Alpes, France  
kim-thang.nguyen@univ-grenoble-alpes.fr

*ACM Classification 2012*

Mathematics of computing → Combinatorics; Mathematics of computing → Graph theory; Theory of computation → Formal languages and automata theory; Theory of computation → Logic; Theory of computation → Design and analysis of algorithms; Theory of computation → Computational complexity and cryptography; Theory of computation → Models of computation

**ISBN 978-3-95977-365-2**

*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/978-3-95977-365-2>.

*Publication date*

March, 2025

*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>.

*License*

This work is licensed under a Creative Commons Attribution 4.0 International license (CC-BY 4.0):  
<https://creativecommons.org/licenses/by/4.0/legalcode>.

In brief, this license authorizes each and everybody to share (to copy, distribute and transmit) the work under the following conditions, without impairing or restricting the authors' moral rights:

- Attribution: The work must be attributed to its authors.

The copyright is retained by the corresponding authors.



Digital Object Identifier: 10.4230/LIPIcs.STACS.2025.0

ISBN 978-3-95977-365-2

ISSN 1868-8969

<https://www.dagstuhl.de/lipics>

## LIPICS – Leibniz International Proceedings in Informatics

LIPICS is a series of high-quality conference proceedings across all fields in informatics. LIPICS volumes are published according to the principle of Open Access, i.e., they are available online and free of charge.

### *Editorial Board*

- Luca Aceto (Reykjavik University, IS and Gran Sasso Science Institute, IT)
- Christel Baier (TU Dresden, DE)
- Roberto Di Cosmo (Inria and Université Paris Cité, FR)
- Faith Ellen (University of Toronto, CA)
- Javier Esparza (TU München, DE)
- Daniel Král' (Masaryk University, Brno, CZ)
- Meena Mahajan (*Chair*, Institute of Mathematical Sciences, Chennai, IN)
- Anca Muscholl (University of Bordeaux, FR)
- Chih-Hao Luke Ong (Nanyang Technological University, SG)
- Phillip Rogaway (University of California, Davis, US)
- Eva Rotenberg (Technical University of Denmark, Lyngby, DK)
- Raimund Seidel (Universität des Saarlandes, Saarbrücken, DE and Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Wadern, DE)
- Pierre Senellart (ENS, Université PSL, Paris, FR)

**ISSN 1868-8969**

**<https://www.dagstuhl.de/lipics>**



# Contents

Preface <i>Olaf Beyersdorff, Michał Pilipczuk, Elaine Pimentel, and Nguyễn Kim Thắng</i> ....	0:xi–0:xii
Conference Organization	0:xiii–0:xvii
List of Authors	0:xix–0:xxv

## Invited Talks

Proof Complexity and Its Relations to SAT Solving <i>Albert Atserias</i> .....	1:1–1:1
A Strongly Polynomial Algorithm for Linear Programs with at Most Two Non-Zero Entries per Row or Column <i>Daniel Dadush, Zhuan Khye Koh, Bento Natura, Neil Olver, and László A. Végh</i> ..	2:1–2:1
Algebras for Automata: Reasoning with Regularity <i>Anupam Das</i> .....	3:1–3:1
Some Recent Advancements in Monotone Circuit Complexity <i>Susanna F. de Rezende</i> .....	4:1–4:2

## Regular Papers

Parameterized Saga of First-Fit and Last-Fit Coloring <i>Akanksha Agrawal, Daniel Lokshtanov, Fahad Panolan, Saket Saurabh, and Shaily Verma</i> .....	5:1–5:21
Twin-Width One <i>Jungho Ahn, Hugo Jacob, Noleen Köhler, Christophe Paul, Amadeus Reinhard, and Sebastian Wiederrecht</i> .....	6:1–6:19
Faster Edge Coloring by Partition Sieving <i>Shyan Akmal and Tomohiro Koana</i> .....	7:1–7:18
Tropical Proof Systems: Between R(CP) and Resolution <i>Yaroslav Alekseev, Dima Grigoriev, and Edward A. Hirsch</i> .....	8:1–8:20
Improved Approximation Algorithms for (1,2)-TSP and Max-TSP Using Path Covers in the Semi-Streaming Model <i>Sharareh Alipour, Ermiya Farokhnejad, and Tobias Mömke</i> .....	9:1–9:17
Monotone Weak Distributive Laws over the Lifted Powerset Monad in Categories of Algebras <i>Quentin Aristote</i> .....	10:1–10:20
Generalized Inner Product Estimation with Limited Quantum Communication <i>Srinivasan Arunachalam and Louis Schatzki</i> .....	11:1–11:17

Results on $H$ -Freeness Testing in Graphs of Bounded $r$ -Admissibility <i>Christine Awofeso, Patrick Greaves, Oded Lachish, and Felix Reidl</i> .....	12:1–12:16
Hyperbolic Random Graphs: Clique Number and Degeneracy with Implications for Colouring <i>Samuel Baguley, Yannic Maus, Janosch Ruff, and George Skretas</i> .....	13:1–13:20
Multivariate Exploration of Metric Dilation <i>Aritra Banik, Fedor V. Fomin, Petr A. Golovach, Tanmay Inamdar, Satyabrata Jana, and Saket Saurabh</i> .....	14:1–14:17
Structure-Guided Automated Reasoning <i>Max Bannach and Markus Hecher</i> .....	15:1–15:18
Listing Spanning Trees of Outerplanar Graphs by Pivot-Exchanges <i>Nastaran Behrooznia and Torsten Mütze</i> .....	16:1–16:18
Tight Approximation and Kernelization Bounds for Vertex-Disjoint Shortest Paths <i>Matthias Bentert, Fedor V. Fomin, and Petr A. Golovach</i> .....	17:1–17:17
Online Disjoint Set Covers: Randomization Is Not Necessary <i>Marcin Bienkowski, Jarosław Byrka, and Łukasz Jeż</i> .....	18:1–18:16
The Complexity of Learning LTL, CTL and ATL Formulas <i>Benjamin Bordais, Daniel Neider, and Rajarshi Roy</i> .....	19:1–19:20
On Cascades of Reset Automata <i>Roberto Borelli, Luca Geatti, Marco Montali, and Angelo Montanari</i> .....	20:1–20:22
Computability of Extender Sets in Multidimensional Subshifts <i>Antonin Callard, Léo Paviet Salomon, and Pascal Vanier</i> .....	21:1–21:19
CMSO-Transducing Tree-Like Graph Decompositions <i>Rutger Campbell, Bruno Guillon, Mamadou Moustapha Kanté, Eun Jung Kim, and Noleen Köhler</i> .....	22:1–22:18
How to Play the Accordion: Uniformity and the (Non-)Conservativity of the Linear Approximation of the $\lambda$ -Calculus <i>Rémy Cerdà and Lionel Vaux Auclair</i> .....	23:1–23:21
A Deterministic Approach to Shortest Path Restoration in Edge Faulty Graphs <i>Keerti Choudhary and Rishabh Dhaman</i> .....	24:1–24:10
Local Density and Its Distributed Approximation <i>Aleksander Bjørn Christiansen, Ivor van der Hoog, and Eva Rotenberg</i> .....	25:1–25:20
Toward Better Depth Lower Bounds: Strong Composition of XOR and a Random Function <i>Nikolai Chukhin, Alexander S. Kulikov, and Ivan Mihajlin</i> .....	26:1–26:15
Local Equivalence of Stabilizer States: A Graphical Characterisation <i>Nathan Claudet and Simon Perdrix</i> .....	27:1–27:18
Can You Link Up With Treewidth? <i>Radu Curticapean, Simon Döring, Daniel Neuen, and Jiaheng Wang</i> .....	28:1–28:24

Noisy (Binary) Searching: Simple, Fast and Correct <i>Dariusz Dereniowski, Aleksander Łukasiewicz, and Przemysław Uznański</i> .....	29:1–29:18
Being Efficient in Time, Space, and Workload: a Self-Stabilizing Unison and Its Consequences <i>Stéphane Devismes, David Ilcinkas, Colette Johnen, and Frédéric Mazoit</i> .....	30:1–30:18
Efficient Approximation Schemes for Scheduling on a Stochastic Number of Machines <i>Leah Epstein and Asaf Levin</i> .....	31:1–31:18
A Faster Algorithm for Constrained Correlation Clustering <i>Nick Fischer, Evangelos Kipouridis, Jonas Klausen, and Mikkel Thorup</i> .....	32:1–32:18
Metric Dimension and Geodetic Set Parameterized by Vertex Cover <i>Florent Foucaud, Esther Galby, Liana Khazaliya, Shaohua Li, Fionn Mc Inerney, Roohani Sharma, and Prafullkumar Tale</i> .....	33:1–33:20
Agreement Tasks in Fault-Prone Synchronous Networks of Arbitrary Structure <i>Pierre Fraigniaud, Minh Hang Nguyen, and Ami Paz</i> .....	34:1–34:21
Dimension-Free Parameterized Approximation Schemes for Hybrid Clustering <i>Ameet Gadekar and Tanmay Inamdar</i> .....	35:1–35:20
MaxMin Separation Problems: FPT Algorithms for <i>st</i> -Separator and Odd Cycle Transversal <i>Ajinkya Gaikwad, Hitendra Kumar, Soumen Maity, Saket Saurabh, and Roohani Sharma</i> .....	36:1–36:21
On the Existential Theory of the Reals Enriched with Integer Powers of a Computable Number <i>Jorge Gallego-Hernández and Alessio Mansutti</i> .....	37:1–37:18
Two-Dimensional Longest Common Extension Queries in Compact Space <i>Arnab Ganguly, Daniel Gibney, Rahul Shah, and Sharma V. Thankachan</i> .....	38:1–38:17
A Quasi-Polynomial Time Algorithm for Multi-Arrival on Tree-Like Multigraphs <i>Ebrahim Ghorbani, Jonah Leander Hoff, and Matthias Mnich</i> .....	39:1–39:19
Identity-Preserving Lax Extensions and Where to Find Them <i>Sergey Goncharov, Dirk Hofmann, Pedro Nora, Lutz Schröder, and Paul Wild</i> ....	40:1–40:20
Residue Domination in Bounded-Treewidth Graphs <i>Jakob Greilhuber, Philipp Schepper, and Philip Wellnitz</i> .....	41:1–41:20
Local Enumeration: The Not-All-Equal Case <i>Mohit Gurumukhani, Ramamohan Paturi, Michael Saks, and Navid Talebanfard</i> ..	42:1–42:19
Approximating Densest Subgraph in Geometric Intersection Graphs <i>Sariel Har-Peled and Saladi Rahul</i> .....	43:1–43:17
Independence and Domination on Bounded-Treewidth Graphs: Integer, Rational, and Irrational Distances <i>Tim A. Hartmann and Dániel Marx</i> .....	44:1–44:19
Forbidden Patterns in Mixed Linear Layouts <i>Deborah Haun, Laura Merker, and Sergey Pupyrev</i> .....	45:1–45:21

Sampling Unlabeled Chordal Graphs in Expected Polynomial Time <i>Úrsula Hébert-Johnson and Daniel Lokshtanov</i> .....	46:1–46:20
Minimizing the Number of Tardy Jobs with Uniform Processing Times on Parallel Machines <i>Klaus Heeger and Hendrik Molter</i> .....	47:1–47:17
Subshifts Defined by Nondeterministic and Alternating Plane-Walking Automata <i>Benjamin Hellouin de Menibus and Pacôme Perrotin</i> .....	48:1–48:15
Cycle Counting Under Local Differential Privacy for Degeneracy-Bounded Graphs <i>Quentin Hillebrand, Vorapong Suppakitpaisarn, and Tetsuo Shibuya</i> .....	49:1–49:22
Designing Exploration Contracts <i>Martin Hoefer, Conrad Scheckler, and Kevin Schewior</i> .....	50:1–50:19
Protecting the Connectivity of a Graph Under Non-Uniform Edge Failures <i>Felix Hommelsheim, Zhenwei Liu, Nicole Megow, and Guochuan Zhang</i> .....	51:1–51:21
Polynomial Kernel and Incompressibility for Prison-Free Edge Deletion and Completion <i>Séhane Bel Houari-Durand, Eduard Eiben, and Magnus Wahlström</i> .....	52:1–52:17
On Read- $k$ Projections of the Determinant <i>Pavel Hrubeš and Pushkar S. Joglekar</i> .....	53:1–53:7
Multidimensional Quantum Walks, Recursion, and Quantum Divide & Conquer <i>Stacey Jeffery and Galina Pass</i> .....	54:1–54:16
Modal Separation of Fixpoint Formulae <i>Jean Christoph Jung and Jędrzej Kołodziejski</i> .....	55:1–55:20
Transforming Stacks into Queues: Mixed and Separated Layouts of Graphs <i>Julia Katheder, Michael Kaufmann, Sergey Pupyrev, and Torsten Ueckerdt</i> .....	56:1–56:18
Approximate Minimum Tree Cover in All Symmetric Monotone Norms Simultaneously <i>Matthias Kaul, Kelin Luo, Matthias Mnich, and Heiko Röglin</i> .....	57:1–57:18
Violating Constant Degree Hypothesis Requires Breaking Symmetry <i>Piotr Kawalek and Armin Weiß</i> .....	58:1–58:21
Online Matching with Delays and Size-Based Costs <i>Yasushi Kawase and Tomohiro Nakayoshi</i> .....	59:1–59:18
Modular Counting CSP: Reductions and Algorithms <i>Amirhossein Kazeminia and Andrei A. Bulatov</i> .....	60:1–60:18
Efficiently Computing the Minimum Rank of a Matrix in a Monoid of Zero-One Matrices <i>Stefan Kiefer and Andrew Ryzhikov</i> .....	61:1–61:22
Faster Algorithms on Linear Delta-Matroids <i>Tomohiro Koana and Magnus Wahlström</i> .....	62:1–62:19
Approximation of Spanning Tree Congestion Using Hereditary Bisection <i>Petr Kolman</i> .....	63:1–63:6

Cluster Editing on Cographs and Related Classes <i>Manuel Lafond, Alitzel López Sánchez, and Weidong Luo</i>	64:1–64:21
On Average Baby PIH and Its Applications <i>Yuwei Liu, Yijia Chen, Shuang Li, Bingkai Lin, and Xin Zheng</i>	65:1–65:19
The Hardness of Decision Tree Complexity <i>Bruno Loff and Alexey Milovanov</i>	66:1–66:13
Commutative N-Rational Series of Polynomial Growth <i>Aliaume Lopez</i>	67:1–67:16
Slightly Non-Linear Higher-Order Tree Transducers <i>Lê Thành Dũng (Tito) Nguyễn and Gabriele Vanoni</i>	68:1–68:20
A Dichotomy Theorem for Ordinal Ranks in MSO <i>Damian Niwiński, Paweł Parys, and Michał Skrzypczak</i>	69:1–69:18
Colorful Vertex Recoloring of Bipartite Graphs <i>Boaz Patt-Shamir, Adi Rosén, and Seeun William Umboh</i>	70:1–70:19
Unfairly Splitting Separable Necklaces <i>Patrick Schnider, Linus Stalder, and Simon Weber</i>	71:1–71:19
Card-Based Protocols Imply PSM Protocols <i>Kazumasa Shinagawa and Koji Nuida</i>	72:1–72:18
Dominating Set, Independent Set, Discrete $k$ -Center, Dispersion, and Related Problems for Planar Points in Convex Position <i>Anastasiia Tkachenko and Haitao Wang</i>	73:1–73:20
Nearly-Optimal Algorithm for Non-Clairvoyant Service with Delay <i>Noam Touitou</i>	74:1–74:21
Canonical Labeling of Sparse Random Graphs <i>Oleg Verbitsky and Maksim Zhukovskii</i>	75:1–75:20
Dynamic Unit-Disk Range Reporting <i>Haitao Wang and Yiming Zhao</i>	76:1–76:19



## 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.

STACS 2025 consists of two tracks, A and B. Track A is dedicated to algorithms and data structures, complexity and games. Track B covers automata, logic, semantics and theory of programming.

STACS is held alternately in France and in Germany. This year's conference, taking place in Jena (Germany) from March 4 to March 7, is the 42nd 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), Montpellier (2020), Saarbrücken (2021, taking place virtually), Marseille (2022, taking place virtually), Hamburg (2023) and Clermont-Ferrand (2024).

The STACS 2025 call for papers led to 259 submissions (202 for Track A and 57 for Track B). Each paper was assigned to three program committee members who, at their discretion, asked external reviewers for reports. STACS 2025 employed a lightweight double-blind reviewing process and incorporated an author rebuttal period in the reviewing process.

The committee selected 72 papers for presentation at the conference (55 for Track A and 17 for Track B), implying an acceptance rate of approximately 28%. We are thankful to all individuals, institutions, and organizations who contributed to making STACS 2025 a success. We thank all authors for submitting their work to STACS 2025. Our deepest thanks go to all Program Committee members and external expert reviewers for carefully reading the submissions, providing constructive comments, and for participating in extensive discussions that helped in selecting the strongest papers for the technical program of the conference. The very high quality of the submissions made the selection an extremely difficult task. We also thank the Steering Committee members of STACS for providing overall guidance.

We would like to express our gratitude to the three invited speakers: Daniel Dadush (CWI Amsterdam), Anupam Das (University of Birmingham), and Susanna F. de Rezende (Lund University) and to Albert Atserias (UPC Barcelona) as the tutorial speaker.

STACS 2025 was preceded on 3 and 4 March 2025 by a workshop on algorithms, complexity and logic (Theorietag), a workshop under the auspices of the GI interest groups on Algorithms, Complexity and Logic. Invited talks at the workshop were given by Heribert Vollmer (Hanover) and Sebastian Wild (Marburg). We thank Christian Komusiewicz (University of Jena) for co-organising the pre-conference workshop. As in 2024, STACS 2025 was accompanied by an extended stay support program, allowing participants to combine their conference visit with a research trip to a nearby university.

Full versions of selected outstanding papers from STACS 2025 are invited for submission to the journal *TheoretCS*. Further selected papers from Track A are invited to the *ACM Transactions on Computation Theory* and selected papers from Track B to *Logical Methods in Computer Science*.

We thank the LIPICs 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 tutorial and invited talks. 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 Friedrich Schiller University of Jena, the Carl Zeiss Foundation, the Interactive Inference project, Inverso, the University Clermont Auvergne and LIMOS for their support. Our special thanks go to Silvia Blaser, Benjamin Böhm, Marlene Gründel, Tim Hoffmann, Kaspar Kasche, Agnes Schleitzer and Luc Spachmann – the local organising team at the University of Jena – for all their help with the organisation, including the webpages, the registration and the social events.

March 2025

Olaf Beyersdorff  
Michał Pilipczuk  
Elaine Pimentel  
Nguyễn Kim Thắng

# ■ Conference Organisation

## Program Committee – Track A

Antonios Antoniadis	University of Twente
Christian Coester	University of Oxford
Johanne Cohen	CNRS, Université Paris-Saclay
Arnaud de Mesmay	CNRS, Université Gustave Eiffel
Holger Dell	Goethe University Frankfurt and IT University of Copenhagen
Omar Fawzi	Inria, ENS Lyon
Paweł Gawrychowski	University of Wrocław
Carla Groenland	TU Delft
Zhiyi Huang	University of Hong Kong
Bart Jansen	TU Eindhoven
Tuukka Korhonen	University of Copenhagen
Jakub Łącki	Google Research, New York
Hung Le	University of Massachusetts at Amherst
Nguyễn Kim Thắng	Université Grenoble-Alpes, co-chair
Michał Pilipczuk	University of Warsaw, co-chair
Lars Rohwedder	Maastricht University
Rahul Santhanam	University of Oxford
Shay Solomon	Tel-Aviv University
Tatiana Starikovskaya	ENS Paris
Jukka Suomela	Aalto University
Jakub Tarnawski	Microsoft Research
Torsten Ueckerdt	Karlsruhe Institute of Technology
Jan van den Brand	Georgia Tech
Karol Węgrzycki	Saarland University and MPI
Andreas Wiese	Technical University of Munich

## Program Committee – Track B

Christoph Berkholz	TU Ilmenau
Olaf Beyersdorff	Friedrich Schiller University Jena, co-chair
Benedikt Bollig	CNRS, ENS Paris-Saclay
Flavien Breuvart	LIPN, Université Sorbonne Paris Nord
Michaël Cadilhac	DePaul University, Chicago, IL
Nofar Carmeli	Inria, LIRMM, Montpellier
Moses Ganardi	MPI-SWS Kaiserslautern
Christoph Haase	University of Oxford
Sandra Kiefer	University of Oxford
Alexander Kurz	Chapman
Dietrich Kuske	TU Ilmenau
Karoliina Lehtinen	CNRS, Aix-Marseille University, LIS
Stefan Mengel	CNRS, CRIL Lens
Cláudia Nalon	University of Brasilia
Elaine Pimentel	University College London, co-chair
Jurriaan Rot	Radboud University, Nijmegen

### **Steering Committee**

Dietmar Berwanger	LMF, CNRS, Université Paris-Saclay
Marthe Bonamy	LaBRI, CNRS, Université de Bordeaux
Cyril Nicaud	LIGM, Université Paris-Est
Sylvain Schmitz	IRIF, Université de Paris
Luc Segoufin	DI ENS, INRIA, ENS Ulm
Ioan Todinca	LIFO, Université d'Orléans, co-chair
Petra Berenbrink	Hamburg University
Olaf Beyersdorff	Friedrich Schiller University of Jena
Florin Manea	University of Göttingen
Arne Meier	University of Hannover
Heiko Röglin	University of Bonn
Thomas Schwentick	University of Dortmund, co-chair

### **Local Organising Committee (Friedrich Schiller University Jena)**

Olaf Beyersdorff
Silvia Blaser
Benjamin Böhm
Marlene Gründel, chair
Tim Hoffmann
Kaspar Kasche
Agnes Schleitzer
Luc Spachmann

## Subreviewers

Abheek Ghosh	Barbara Keller	Eduard Eiben
Adam Karczmarz	Baris Can Esmer	Elena Kirshanova
Adam Polak	Barnaby Martin	Elvira Mayordomo
Aditya Prakash	Bartłomiej Bosek	Emile Anand
Ahmad Biniaz	Bartłomiej Dudek	Emmanouil Vasileios Vlatakis
Akanksha Agrawal	Bartłomiej Dudek	Gkaragkounis
Aleksander Łukasiewicz	Ben Cameron	Eniko Kevi
Aleksandrs Belovs	Ben Lee Volk	Enze Sun
Alessandro Ronca	Benedikt Kolbe	Erik Jan van Leeuwen
Alex Crane	Benjamin Monmege	Erik Paul
Alexander Lindermayr	Benjamin Rossman	Esther Galby
Alexander Rabinovich	Bertrand Simon	Euiwoong Lee
Alexander Skopalik	Blaise Genest	Evangelia Gergatsouli
Alexandra Lassota	Bo Li	Evangelos Kipouridis
Alexandra Wesolek	Bruno Lopes	Faith Ellen
Alexandros Hollender	C. S. Bhargav	Fateme Abbasi
Alexis de Colnet	Ce Jin	Fatiha Bendali
Ali Vakilian	Cédric Bentz	Felix Reidl
Alireza Bagheri	Chenglin Fan	Feng Shi
Alkida Balliu	Chetan Gupta	Florent Foucaud
Aloïs Dufour	Chien-Chung Huang	Florin Manea
Alon Efrat	Chris Köcher	Francesco Dagnino
Ama Koranteng	Christian Ikenmeyer	Franziska Eberle
Amin Shiraz Gilani	Christian Scheideler	Frédéric Magniez
Anastasia Alokhina	Christof Löding	Gabriel Bathie
Anay Mehrotra	Christoph Dürr	Gabriel Istrate
André Nichterlein	Christoph Lenzen	Gaétan Berthe
André Nusser	Christophe Tollu	George Christodoulou
Andreas Björklund	Chung-Shou Liao	George Kenison
Andreas Emil Feldmann	Clemens Thielen	George Manousakis
Andreas Göbel	Clovis Eberhart	George Mertzios
Andreas Maggiori	Colin Geniet	George Osipov
Andreas Maletti	Corentin Barloy	Giannos Stamoulis
Andrei Krokhin	Corto Mascle	Giorgio Lucarelli
Andrew Ryzhikov	Csaba Toth	Giulia Bernardini
Andris Ambainis	Da Wei Zheng	Graham Leigh
Anish Mukherjee	Damien Busatto-Gaston	Greg Bodwin
Anna Gilbert	Dana Ron	Guillaume Ducoffe
Antonio Casares	Daniel Cordeiro	Guillaume Malod
Argyrios Deligkas	Daniel Neuen	Guillermo Perez
Arindam Khan	Daniel Turetsky	Haitao Wang
Aritra Banik	Davi Silva	Hang Zhou
Arka Ghosh	David Auger	Hans Bodlaender
Arne Meier	David Harris	Harry Vinall-Smeeth
Artem Tsikiridis	David Lidell	Hermann Haeusler
Artur Riazanov	David Mix Barrington	Hermann Wilhelm
Arturo Merino	David R. Wood	Hoai-An Nguyen
Aryan Agarwala	Dedy Septono Catur Putranto	Hsi-Ming Ho
Ashkan Norouzi Fard	Dominik Scheder	Hsin-Hao Su
Athanasis Konstantinidis	Dorit Hochbaum	Hugo Akitaya
Augusto Modanese	Dušan Knop	Ian Pratt-Hartmann
Balagopal Komarath	Édouard Bonnet	Ignaz Rutter

Ioan Todinca  
Ioannis Psarros  
Isabella Ziccardi  
Jacob Focke  
Jacob Imola  
Jaegun Lee  
James Brotherston  
Jan Boeckmann  
Jan Bok  
Janik Huth  
Jannik Olbrich  
Jannis Blauth  
Jaroslaw Byrka  
Jędrzej Hodor  
Jesper Nederlof  
Jianqiang Li  
Jinge Bao  
Jingyang Zhao  
Joachim Gudmundsson  
Jochen Koenemann  
Joe Sawada  
Joel Rybicki  
Johannes Lengler  
Jonas Ellert  
Jonas Sénizergues  
Joseph Landsberg  
Joshua Brakensiek  
Julien Baste  
Kaave Hosseini  
Karine Altisen  
Karol Pokorski  
Karthik C. S.  
Kazuyuki Amano  
Kevin Schewior  
Khaled Elbassioni  
Kiril Bangachev  
Kirill Simonov  
Konstantinos Tsakalidis  
Krzysztof Fleszar  
Kunihiro Wasa  
Kyungjin Cho  
Lars Jaffke  
Lasse Wulf  
Laurent Bienvenu  
Laurent Feuilloley  
Laurent Gourves  
Lazar Milenovic  
Lê Thành Dũng Nguyen  
Leo Wennmann  
León Bohn  
Leonid Barenboim  
Leqi Zhu  
Leroy Chew  
Liam Roditty  
Lina Vandré  
Lior Gishboliner  
Loes Kruger  
Loïc Dubois  
Loukas Georgiadis  
Luc Pellissier  
Luca Pascal Staus  
Lucas De Meyer  
Lucia Draque Penso  
Lukas Plätz  
Lukasz Kowalik  
Lvzhou Li  
Maël Dumas  
Magnus Berg  
Manfred Kufleitner  
Manoj Gupta  
Manolis Vasilakis  
Marc Schroder  
Marcel Roeloffzen  
Marcella Anselmo  
Marcin Bienkowski  
Marcin Pilipczuk  
Marck van der Vegt  
Marco Bressan  
Marek Sokołowski  
Marin Bougeret  
Mark Bun  
Markus Anders  
Markus Hecher  
Markus Lohrey  
Martin Böhm  
Martin Koutecký  
Martin Lange  
Martin S. Krejca  
Masayuki Miyamoto  
Massimo Equi  
Massimo Lauria  
Mateusz Skomra  
Mateusz Wasylkiewicz  
Mathieu Mari  
Matias Korman  
Matt Kovacs-Deak  
Matthew Gray  
Matthew Kwan  
Matthias Bentert  
Matthias Kaul  
Matthias Mnich  
Max Deppert  
Max Dupré La Tour  
Maximilian Merz  
Maximilian Weininger  
Meike Neuwohner  
Michael Bekos  
Michael Blondin  
Michael Kompatscher  
Michael Lampis  
Michael Poss  
Michaela Borzechowski  
Michal Opler  
Mickael Randour  
Mikaël Rabie  
Mikko Koivisto  
Miriam Münch  
Mirza Redzic  
Mohammad Roghani  
Morgan Rogers  
Moritz Buchem  
Moritz Licher  
Moritz Muehlenthaler  
Naonori Kakimura  
Narek Bojikian  
Nathan Klein  
Neha Rino  
Nicolas Bonichon  
Nicolas Bousquet  
Nicolas Heurtel  
Niels Kornerup  
Niels van der Weide  
Nikhil Balaji  
Nikhil Bansal  
Nikhil Mande  
Niko Hastrich  
Nima Anari  
Ninad Rajgopal  
Nir Piterman  
Noam Touitou  
Nobutaka Shimizu  
Norbert Zeh  
Nutan Limaye  
Olivier Idir  
Omrit Filtser  
Pål Grønås Drange  
Pamela Fleischmann  
Pan Peng  
Panagiotis Charalampopoulos  
Panos Giannopoulos  
Pasin Manurangsi  
Paul Duetting  
Paulin Jacobé De Naurois  
Paweł Rzążewski  
Pei Wu  
Peter Kling  
Peter Manohar  
Petr Golovach  
Peyman Afshani  
Philipp Hieronymi  
Philipp Schepper  
Pierre Bergé  
Pierre Coucheney  
Pierre Ohlmann  
Prafullkumar Tale

Prahlad Narasimhan Kasthurirangan	Sándor Kisfaludi-Bak	Tianyi Zhang
Prajakta Nimborkar	Sarah Maria Morell	Tim Oosterwijk
Pramod Ganapathi	Sariel Har-Peled	Tim Randolph
Pranjal Dutta	Sathiya Venkatesan Ramesh	Timothy Gomez
Prantar Ghosh	Sathwik Karnik	Tobias Winkler
Prashanth Amireddy	Sebastian Berndt	Toghrul Karimov
Qi Ye	Sebastian Haslebacher	Tom van der Zanden
Qipeng Liu	Sebastian Meyer	Tomohiro Koana
Quentin Bramas	Sebastian Pfau	Toshiki Saitoh
R Govind	Sebastian Schubert	Tristan Kraft
R.B. Sandeep	Sebastian Siebertz	Ullrich Hustadt
Radosław Piórkowski	Sebastian Zur	Vaishali Surianarayanan
Radu Curticapean	Seeun William Umboh	Vida Dujmović
Rahul Vaze	Sergey Kitaev	Viet Cuong Than
Rainer Gemulla	Sergey Pupyrev	Vignesh Viswanathan
Rajendra Kumar	Sergio Cabello	Viktoria Korchemna
Rajesh Chitnis	Sergio Rajsbaum	Vincent Chau
Ramanujan M. Sridharan	Shaofeng H.-C. Jiang	Vincent Cohen-Addad
Raul Lopes	Shaull Almagor	Vishwas Bhargava
Reiko Heckel	Shibashis Guha	Vladislav Ryzhikov
Reilly Browne	Shinwoo An	Warut Suksompong
Rémy Belmonte	Shreyas Srinivas	Wei Zhan
Renzo Gomez	Simon D. Fink	Weitian Tong
Reuben Rowe	Simon Döring	Wenjie Fang
Reut Levi	Simon Weber	Will Perkins
Rhea Jain	Sorraphai Yingchareonthawornchai	William Kretschmer
Riccardo Michielan	Stanislav Živný	Wojciech Janczewski
Richard Mayr	Stefan Kiefer	Wojciech Nadara
Rini Wisnu Wardhani	Stefan Weltge	Wolfgang Mulzer
Rob van Stee	Susanna F. de Rezende	Xiao Peng
Robert Mercas	Susanne Albers	Xiaojun Dong
Robin Vacus	Suthee Ruangwises	Ya-Chun Liang
Rodrigo Raya	Sven Jäger	Yanlin Chen
Rohit Gurjar	Sylvain Schmitz	Yann Strozecki
Ronnie Pavlov	Taehoon Ahn	Yasamin Nazari
Roohani Sharma	Taha El Ghazi El Houssaini	Yassine Hamoudi
Ruben F.A. Verhaegh	Talya Eden	Yinzhan Xu
Ruben Hoeksma	Tamio-Vesa Nakajima	Yogesh Dahiya
Sablik Mathieu	Tanmay Inamdar	Yongjie Yang
Saket Saurabh	Thekla Hamm	Yota Otachi
Saladi Rahul	Themistoklis Melissourgos	Youssouf Oualhadj
Samah Ghazawi	Thi Quynh Trang Vo	Yu Chen
Samarth Tiwari	Thomas Colcombet	Yun Kuen Cheung
Sami Davies	Thomas Erlebach	Yunchao Liu
Sampson Wong	Thomas Lavastida	Yurong Chen
Sander Gribling	Thomas Seiller	Yusuke Kobayashi
Sándor Fekete	Thorben Tröbst	Zixuan Zhu



## List of Authors

- Akanksha Agrawal  (5)  
Indian Institute of Technology Madras, India
- Jungho Ahn  (6)  
Korea Institute for Advanced Study (KIAS), Seoul, South Korea
- Shyan Akmal  (7)  
INSAIT, Sofia University "St. Kliment Ohridski", Bulgaria
- Yaroslav Alekseev  (8)  
Technion - Israel Institute of Technology, Haifa, Israel
- Sharareh Alipour  (9)  
Department of Computer Science, Tehran Institute for Advanced Studies (TeIAS), Khatam University, Tehran, Iran
- Quentin Aristote  (10)  
Université Paris Cité, CNRS, Inria, IRIF, F-75013, Paris, France
- Srinivasan Arunachalam  (11)  
IBM Quantum, Almaden, CA, USA
- Albert Atserias  (1)  
Universitat Politècnica de Catalunya, Barcelona, Spain; Centre de Recerca Matemàtica, Bellaterra, Spain
- Christine Awofeso  (12)  
Birkbeck, University of London, UK
- Samuel Baguley  (13)  
Hasso Plattner Institute, University of Potsdam, Germany
- Aritra Banik  (14)  
National Institute of Science, Education and Research, An OCC of Homi Bhabha National Institute, Bhubaneswar, India
- Max Bannach  (15)  
European Space Agency, Advanced Concepts Team, Noordwijk, The Netherlands
- Nastaran Behrooznia (16)  
Department of Computer Science, University of Warwick, Coventry, UK
- Matthias Bentert (17)  
University of Bergen, Norway
- Marcin Bienkowski  (18)  
University of Wrocław, Poland
- Benjamin Bordais  (19)  
TU Dortmund University, Center for Trustworthy Data Science and Security, University Alliance Ruhr, Dortmund, Germany
- Roberto Borelli  (20)  
University of Udine, Italy
- Andrei A. Bulatov (60)  
Simon Fraser University, Barnaby, Canada
- Jarosław Byrka  (18)  
University of Wrocław, Poland
- Antonin Callard  (21)  
Normandie Univ, UNICAEN, ENSICAEN, CNRS, GREYC, 14000, Caen, France
- Rutger Campbell (22)  
Discrete Mathematics Group, Institute for Basic Science, Daejeon, South Korea
- Rémy Cerdà  (23)  
Aix-Marseille Université, CNRS, I2M, France; Université Paris Cité, CNRS, IRIF, F-75013, Paris, France
- Yijia Chen  (65)  
Shanghai Jiao Tong University, China
- Keerti Choudhary  (24)  
Department of Computer Science and Engineering, IIT Delhi, India
- Aleksander Bjørn Christiansen  (25)  
Technical University of Denmark, Lyngby, Denmark
- Nikolai Chukhin (26)  
Neapolis University Pafos, Cyprus; JetBrains Research, Paphos, Cyprus
- Nathan Claudet  (27)  
Inria Mocqua, LORIA, CNRS, Université de Lorraine, F-54000 Nancy, France
- Radu Curticapean  (28)  
University of Regensburg, Germany; IT University of Copenhagen, Denmark
- Daniel Dadush  (2)  
Centrum Wiskunde & Informatica, Amsterdam, The Netherlands
- Anupam Das  (3)  
University of Birmingham, UK

Susanna F. de Rezende  (4)  
Lund University, Sweden

Dariusz Dereniowski  (29)  
Faculty of Electronics, Telecommunications and  
Informatics, Gdańsk University of Technology,  
Poland

Stéphane Devismes  (30)  
Laboratoire MIS, Université de Picardie, 33 rue  
Saint Leu - 80039 Amiens cedex 1, France

Rishabh Dhiman (24)  
Department of Computer Science and  
Engineering, IIT Delhi, India

Simon Döring  (28)  
Max Planck Institute for Informatics,  
Saarbrücken, Germany; Saarland University  
(SIC), Saarbrücken, Germany

Eduard Eiben  (52)  
Department of Computer Science, Royal  
Holloway University of London, UK

Leah Epstein  (31)  
Department of Mathematics, University of Haifa,  
Israel

Ermiya Farokhnejad  (9)  
Department of Computer Science, University of  
Warwick, Coventry, UK

Nick Fischer  (32)  
INSAIT, Sofia University "St. Kliment  
Ohridski", Bulgaria

Fedor V. Fomin  (14, 17)  
University of Bergen, Norway

Florent Foucaud  (33)  
Université Clermont Auvergne, CNRS, Mines  
Saint-Étienne, Clermont Auvergne INP, LIMOS,  
63000 Clermont-Ferrand, France

Pierre Fraigniaud  (34)  
Institut de Recherche en Informatique  
Fondamentale (IRIF), CNRS, Université Paris  
Cité, France

Ameet Gadekar  (35)  
CISPA Helmholtz Center for Information  
Security, Saarbrücken, Germany

Ajinkya Gaikwad  (36)  
Indian Institute of Science Education and  
Research, Pune, India

Esther Galby  (33)  
Department of Computer Science and  
Engineering, Chalmers University of Technology  
and University of Gothenburg, Sweden

Jorge Gallego-Hernández  (37)  
IMDEA Software Institute, Madrid, Spain;  
Universidad Politécnica de Madrid, Spain

Arnab Ganguly  (38)  
University of Wisconsin, Whitewater, WI, USA

Luca Geatti  (20)  
University of Udine, Italy

Ebrahim Ghorbani  (39)  
Hamburg University of Technology, Institute for  
Algorithms and Complexity, Hamburg, Germany

Daniel Gibney  (38)  
University of Texas at Dallas, TX, USA

Petr A. Golovach  (14, 17)  
University of Bergen, Norway

Sergey Goncharov  (40)  
University of Birmingham, UK

Patrick Greaves  (12)  
Birkbeck, University of London, UK

Jakob Greilhuber  (41)  
TU Wien, Austria; CISPA Helmholtz Center for  
Information Security, Saarbrücken, Germany

Dima Grigoriev (8)  
CNRS, Mathématique, Université de Lille,  
Villeneuve d'Ascq, 59655, France

Bruno Guillon (22)  
Université Clermont Auvergne, Clermont  
Auvergne INP, LIMOS, CNRS,  
Clermont-Ferrand, France

Mohit Gurumukhani  (42)  
Cornell University, Ithaca, NY, USA

Sariel Har-Peled  (43)  
Department of Computer Science, University of  
Illinois at Urbana-Champaign, IL, USA

Tim A. Hartmann  (44)  
CISPA Helmholtz Center for Information  
Security, Saarbrücken, Germany

Deborah Haun  (45)  
Karlsruhe Institute of Technology, Germany

- Markus Hecher  (15)  
Univ. Artois, CNRS UMR 8188, Centre de Recherche en Informatique de Lens (CRIL), 6230, France; Computer Science and Artificial Intelligence Lab, Massachusetts Institute of Technology, Cambridge, MA, USA
- Klaus Heeger  (47)  
Department of Industrial Engineering and Management, Ben-Gurion University of the Negev, Beer-Sheva, Israel
- Benjamin Hellouin de Menibus  (48)  
Université Paris-Saclay, CNRS, Laboratoire Interdisciplinaire des Sciences du Numérique, 91400, Orsay, France
- Quentin Hillebrand  (49)  
The University of Tokyo, Japan
- Edward A. Hirsch  (8)  
Department of Computer Science, Ariel University, Israel
- Martin Hoefer  (50)  
Department of Computer Science, RWTH Aachen University, Germany
- Dirk Hofmann  (40)  
CIDMA, University of Aveiro, Portugal
- Felix Hommelsheim  (51)  
University of Bremen, Germany
- Séhane Bel Houari-Durand  (52)  
ENS Lyon, France
- Pavel Hrubeš  (53)  
Institute of Mathematics of ASCR, Czech Republic
- Úrsula Hébert-Johnson  (46)  
University of California, Santa Barbara, CA, USA
- David Ilcinkas  (30)  
Univ. Bordeaux, CNRS, Bordeaux INP, LaBRI, UMR 5800, F-33400 Talence, France
- Tanmay Inamdar  (14, 35)  
Indian Institute of Technology Jodhpur, India
- Hugo Jacob  (6)  
LIRMM, Université de Montpellier, CNRS, Montpellier, France
- Satyabrata Jana  (14)  
University of Warwick, UK
- Stacey Jeffery  (54)  
QuSoft, CWI, Amsterdam, The Netherlands; University of Amsterdam, The Netherlands
- Łukasz Jeż  (18)  
University of Wrocław, Poland
- Pushkar S. Joglekar  (53)  
Vishwakarma Institute of Technology, Pune, India
- Colette Johnen  (30)  
Univ. Bordeaux, CNRS, Bordeaux INP, LaBRI, UMR 5800, F-33400 Talence, France
- Jean Christoph Jung  (55)  
TU Dortmund University, Germany
- Mamadou Moustapha Kanté  (22)  
Université Clermont Auvergne, Clermont Auvergne INP, LIMOS, CNRS, Clermont-Ferrand, France
- Julia Katheder  (56)  
Wilhelm-Schickard-Institut für Informatik, Universität Tübingen, Germany
- Michael Kaufmann  (56)  
Wilhelm-Schickard-Institut für Informatik, Universität Tübingen, Germany
- Matthias Kaul  (57)  
Hamburg University of Technology, Institute for Algorithms and Complexity, Hamburg, Germany; University of Bonn, Germany
- Yasushi Kawase  (59)  
The University of Tokyo, Japan
- Piotr Kawalek  (58)  
TU Wien, Austria; Jagiellonian University in Kraków, Poland
- Amirhossein Kazeminia (60)  
Simon Fraser University, Burnaby, Canada
- Liana Khazaliya  (33)  
Technische Universität Wien, Austria
- Stefan Kiefer  (61)  
Department of Computer Science, University of Oxford, UK
- Eun Jung Kim  (22)  
KAIST, Daejeon, South Korea; CNRS, France
- Evangelos Kipouridis  (32)  
Max Planck Institute for Informatics, Saarland Informatics Campus, Saarbrücken, Germany
- Jonas Klausen  (32)  
BARC, University of Copenhagen, Denmark

- Tomohiro Koana  (7, 62)  
Utrecht University, The Netherlands; Research Institute for Mathematical Sciences, Kyoto University, Japan
- Zhuan Khye Koh (2)  
Centrum Wiskunde & Informatica, Amsterdam, The Netherlands
- Petr Kolman  (63)  
Department of Applied Mathematics, Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic
- Jędrzej Kołodziejski  (55)  
TU Dortmund University, Germany
- Alexander S. Kulikov  (26)  
JetBrains Research, Paphos, Cyprus
- Hitendra Kumar (36)  
Indian Institute of Science Education and Research, Pune, India
- Noleen Köhler  (6, 22)  
University of Leeds, UK
- Oded Lachish  (12)  
Birkbeck, University of London, UK
- Manuel Lafond  (64)  
Department of Computer Science, Université de Sherbrooke, Canada
- Jonah Leander Hoff (39)  
Hamburg University of Technology, Institute for Algorithms and Complexity, Hamburg, Germany
- Asaf Levin  (31)  
Faculty of Data and Decisions Science, The Technion, Haifa, Israel
- Shaohua Li  (33)  
School of Computer Science and Engineering, Central South University, Changsha, China
- Shuang Li  (65)  
Nanjing University, China
- Bingkai Lin  (65)  
Nanjing University, China
- Yuwei Liu  (65)  
Shanghai Jiao Tong University, China
- Zhenwei Liu  (51)  
Zhejiang University, Hangzhou, China; University of Bremen, Germany
- Bruno Loff  (66)  
LASIGE, Faculdade de Ciências, Universidade de Lisboa, Portugal
- Daniel Lokshtanov  (5, 46)  
University of California, Santa Barbara, CA, USA
- Aliaume Lopez  (67)  
University of Warsaw, Poland
- Kelin Luo  (57)  
University of Bonn, Germany; University at Buffalo, NY, USA
- Weidong Luo  (64)  
Department of Computer Science, Université de Sherbrooke, Canada
- Alitzel López Sánchez  (64)  
Department of Computer Science, Université de Sherbrooke, Canada
- Soumen Maity (36)  
Indian Institute of Science Education and Research, Pune, India
- Alessio Mansutti  (37)  
IMDEA Software Institute, Madrid, Spain
- Dániel Marx  (44)  
CISPA Helmholtz Center for Information Security, Saarbrücken, Germany
- Yannic Maus  (13)  
TU Graz, Austria
- Frédéric Mazoit  (30)  
Univ. Bordeaux, CNRS, Bordeaux INP, LaBRI, UMR 5800, F-33400 Talence, France
- Fionn Mc Inerney  (33)  
Telefónica Scientific Research, Barcelona, Spain
- Nicole Megow  (51)  
University of Bremen, Germany
- Laura Merker  (45)  
Karlsruhe Institute of Technology, Germany
- Ivan Mihajlin (26)  
JetBrains Research, Paphos, Cyprus
- Alexey Milovanov  (66)  
LASIGE, Faculdade de Ciências, Universidade de Lisboa, Portugal
- Matthias Mnich  (39, 57)  
Hamburg University of Technology, Institute for Algorithms and Complexity, Hamburg, Germany

- Hendrik Molter  (47)  
Department of Computer Science, Ben-Gurion University of the Negev, Beer-Sheva, Israel
- Marco Montali  (20)  
Free University of Bozen-Bolzano, Italy
- Angelo Montanari  (20)  
University of Udine, Italy
- Tobias Mömke  (9)  
Department of Computer Science, University of Augsburg, Germany
- Torsten Mütze  (16)  
Institut für Mathematik, Universität Kassel, Germany; Department of Theoretical Computer Science and Mathematical Logic, Charles University, Prague, Czech Republic
- Tomohiro Nakayoshi  (59)  
The University of Tokyo, Japan
- Bento Natura (2)  
Columbia University, New York, NY, USA
- Daniel Neider  (19)  
TU Dortmund University, Center for Trustworthy Data Science and Security, University Alliance Ruhr, Dortmund, Germany
- Daniel Neuen  (28)  
University of Regensburg, Germany; Max Planck Institute for Informatics, Saarbrücken, Germany
- Minh Hang Nguyen  (34)  
Institut de Recherche en Informatique Fondamentale (IRIF), CNRS, Université Paris Cité, France
- Lê Thành Dũng (Tito) Nguyễn  (68)  
CNRS & Aix-Marseille University, France
- Damian Niwiński  (69)  
Institute of Informatics, University of Warsaw, Poland
- Pedro Nora  (40)  
Radboud Universiteit, Nijmegen, The Netherlands
- Koji Nuida  (72)  
Institute of Mathematics for Industry (IMI), Kyushu University, Fukuoka, Japan; National Institute of Advanced Industrial Science and Technology (AIST), Tokyo, Japan
- Neil Olver (2)  
London School of Economics and Political, UK
- Fahad Panolan  (5)  
School of Computer Science, University of Leeds, UK
- Paweł Parys  (69)  
Institute of Informatics, University of Warsaw, Poland
- Galina Pass (54)  
QuSoft, Amsterdam, The Netherlands; University of Amsterdam, The Netherlands
- Boaz Patt-Shamir  (70)  
School of Electrical Engineering, Tel Aviv University, Israel
- Ramamohan Paturi (42)  
Department of Computer Science and Engineering, University of California San Diego, La Jolla, CA, USA
- Christophe Paul  (6)  
LIRMM, Université de Montpellier, CNRS, Montpellier, France
- Léo Paviet Salomon  (21)  
Université de Lorraine, CNRS, Inria, LORIA, 54000, Nancy, France
- Ami Paz  (34)  
Laboratoire Interdisciplinaire des Sciences du Numérique (LISN), CNRS, Université Paris-Saclay, France
- Simon Perdrix  (27)  
Inria Mocqua, LORIA, CNRS, Université de Lorraine, F-54000 Nancy, France
- Pacôme Perrotin  (48)  
Université Paris-Saclay, CNRS, Laboratoire Interdisciplinaire des Sciences du Numérique, 91400, Orsay, France
- Sergey Pupyrev  (45, 56)  
Menlo Park, CA, USA
- Saladi Rahul  (43)  
Indian Institute of Science (IISc), Bangalore, India
- Felix Reidl  (12)  
Birkbeck, University of London, UK
- Amadeus Reinald  (6)  
LIRMM, Université de Montpellier, CNRS, Montpellier, France
- Adi Rosén (70)  
CNRS and Université Paris Cité, France

- Eva Rotenberg  (25)  
Technical University of Denmark, Lyngby,  
Denmark
- Rajarshi Roy  (19)  
Department of Computer Science, University of  
Oxford, UK
- Janosch Ruff  (13)  
Hasso Plattner Institute, University of Potsdam,  
Germany
- Andrew Ryzhikov  (61)  
Department of Computer Science, University of  
Oxford, UK
- Heiko Röglin  (57)  
Universität Bonn, Germany
- Michael Saks (42)  
Department of Mathematics, Rutgers University,  
Piscataway, NJ, USA
- Saket Saurabh  (5, 14, 36)  
The Institute of Mathematical Sciences, HBNI,  
Chennai, India; Department of Informatics,  
University of Bergen, Norway
- Louis Schatzki  (11)  
Electrical and Computer Engineering, University  
of Illinois Urbana-Champaign, IL, USA
- Conrad Schecker  (50)  
Institute for Computer Science, Goethe  
University Frankfurt, Germany
- Philipp Schepper  (41)  
CISPA Helmholtz Center for Information  
Security, Saarbrücken, Germany
- Kevin Schewior  (50)  
Department of Mathematics and Computer  
Science, University of Cologne, Germany;  
University of Southern Denmark, Odense,  
Denmark
- Patrick Schnider  (71)  
Department of Computer Science, ETH Zürich,  
Switzerland
- Lutz Schröder  (40)  
Friedrich-Alexander-Universität  
Erlangen-Nürnberg, Germany
- Rahul Shah  (38)  
Louisiana State University, Baton Rouge, LA,  
USA
- Roohani Sharma  (33, 36)  
University of Bergen, Norway
- Tetsuo Shibuya  (49)  
The University of Tokyo, Japan
- Kazumasa Shinagawa  (72)  
Ibaraki University, Ibaraki, Japan; National  
Institute of Advanced Industrial Science and  
Technology (AIST), Tokyo, Japan
- George Skretas  (13)  
Hasso Plattner Institute, University of Potsdam,  
Germany
- Michał Skrzypczak  (69)  
Institute of Informatics, University of Warsaw,  
Poland
- Linus Stalder (71)  
Department of Computer Science, ETH Zürich,  
Switzerland
- Vorapong Suppakitpaisarn  (49)  
The University of Tokyo, Japan
- Prafullkumar Tale  (33)  
Indian Institute of Science Education and  
Research Pune, India
- Navid Talebanfard  (42)  
University of Sheffield, UK
- Sharma V. Thankachan  (38)  
North Carolina State University, Raleigh, NC,  
USA
- Mikkel Thorup  (32)  
BARC, University of Copenhagen, Denmark
- Anastasiia Tkachenko  (73)  
Kahlert School of Computing, University of  
Utah, Salt Lake City, UT, USA
- Noam Touitou  (74)  
Unaffiliated, Tel Aviv, Israel
- Torsten Ueckerdt  (56)  
Institute of Theoretical Informatics, Karlsruhe  
Institute of Technology, Germany
- Seeun William Umboh  (70)  
School of Computing and Information Systems,  
The University of Melbourne, Australia; ARC  
Training Centre in Optimisation Technologies,  
Integrated Methodologies, and Applications  
(OPTIMA), Melbourne, Australia
- Przemysław Uznański  (29)  
Institute of Computer Science, University of  
Wrocław, Poland
- Ivor van der Hoog  (25)  
Technical University of Denmark, Lyngby,  
Denmark

- Pascal Vanier  (21)  
Normandie Univ, UNICAEN, ENSICAEN,  
CNRS, GREYC, 14000, Caen, France
- Gabriele Vanoni  (68)  
IRIF, Université Paris Cité, France
- Lionel Vaux Auclair  (23)  
Aix-Marseille Université, CNRS, I2M, France
- Oleg Verbitsky  (75)  
Institut für Informatik, Humboldt-Universität zu  
Berlin, Germany
- Shaily Verma  (5)  
Algorithm Engineering Group, Hasso Plattner  
Institute, Potsdam, Germany
- László A. Végh (2)  
University of Bonn, Germany
- Magnus Wahlström  (52, 62)  
Department of Computer Science, Royal  
Holloway University of London, UK
- Haitao Wang  (73, 76)  
Kahlert School of Computing, University of  
Utah, Salt Lake City, UT, USA
- Jiaheng Wang  (28)  
University of Regensburg, Germany
- Simon Weber  (71)  
Department of Computer Science, ETH Zürich,  
Switzerland
- Armin Weiß  (58)  
University of Stuttgart, Germany
- Philip Wellnitz  (41)  
National Institute of Informatics, Tokyo, Japan;  
The Graduate University for Advanced Studies,  
SOKENDAI, Tokyo, Japan
- Sebastian Wiederrecht  (6)  
School of Computing, KAIST, Daejeon, South  
Korea
- Paul Wild  (40)  
Friedrich-Alexander-Universität  
Erlangen-Nürnberg, Germany
- Guochuan Zhang  (51)  
Zhejiang University, Hangzhou, China
- Yiming Zhao  (76)  
Department of Computer Sciences, Metropolitan  
State University of Denver, CO, USA
- Xin Zheng  (65)  
Nanjing University, China

- Maksim Zhukovskii  (75)  
School of Computer Science, University of  
Sheffield, UK
- Aleksander Łukasiewicz  (29)  
Institute of Computer Science, University of  
Wrocław, Poland; Computer Science Institute of  
Charles University, Prague, Czech Republic

