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Preface

Contained within this volume are the peer-reviewed contributions accepted for the 34th International Conference on Concurrency Theory (CONCUR), held in 2023. CONCUR serves as an annual scientific forum for researchers, developers, and students working to expand the field of concurrency theory and its applications. In 2023, the University of Antwerp played host to CONCUR, arranging it alongside QEST 2023, FORMATS 2023, and FMICS 2023 as part of CONFEST 2023, which also featured several workshops one day before and one day after the main conferences.

For CONCUR 2023, we received 98 submissions and accepted 37 for presentation at the conference. The high standard of many submissions meant the acceptance criteria were stringent. We are grateful for the hard work of our program committee who produced 378 reviews with the help of 186 external expert reviewers. Their insights guided us in choosing a diverse set of papers after lively discussions following a rebuttal phase offered to the authors.

We wish to thank the authors for considering the feedback from our reviewers and submitting their revised work to the CONCUR 2023 proceedings. We are confident that the selected papers, due to their high quality, will give rise to interesting presentations and scientifically interesting discussions during the conference.

We are also proud that several well-respected scientists have agreed to deliver invited talks at the conference: Prof. Ahmed Bouajjani, Paris Diderot University, France, Prof. Joost-Pieter Katoen, RWTH Aachen, Germany (joint with all conferences), Prof. Nicolas Markey, University of Rennes, France (joint with FORMATS), Prof. Frans A. Oliehoek, TU Delft, Netherlands (joint with QEST), Prof. David Parker, Oxford University, UK (joint with QEST, FORMATS), Prof. Jaco van de Pol, Aarhus University, Denmark (joint with FORMATS, FMICS), and Prof. Anna Slobodova, Intel, USA (joint with FMICS).

In 2020, CONCUR and the IFIP WG 1.8 on Concurrency Theory initiated the test-of-time award to honor significant contributions to Concurrency Theory that were published at CONCUR. This year’s award goes to Vincent Danos and Jean Krivine for their work “Reversible Communicating Systems,” published in CONCUR 2004.

We address our thanks to the University of Antwerp for its assistance with CONCUR 2023 and CONFEST 2023, as well as to our sponsors, the Research Foundation – Flanders (FWO) and the Fund for Scientific Research (F.R.S.–FNRS).

Lastly, the proceedings of CONCUR 2023 are freely available through the LIPIcs series. We are grateful to the authors of the CONCUR 2023 papers, the participants of the conference, and the student volunteers from the University of Antwerp and the Université libre de Bruxelles for their contribution to making CONCUR 2023 a success.