Logical Methods in Computer Science
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PREFACE

This special issue contains five papers based on extended abstracts that were presented at the 31st edition of Computer Science Logic (CSL), the annual conference of the European Association for Computer Science Logic (EACSL). CSL 2023 was held from 13th to 16th February 2023. It was organised at the University of Warsaw.

CSL is an interdisciplinary conference, spanning across both foundational and application-oriented research in mathematical logic and computer science. It is a forum for the presentation of research on all aspects of logic and applications, including automated deduction and interactive theorem proving, constructive mathematics and type theory, lambda calculus and combinatory logic, equational logic and term rewriting, modal and temporal logic, linear and higher-order logic, non-monotonic reasoning, domain theory, categorical and topological semantics, automata theory, game semantics, logic programming and constraints, specification and transformation of programs, proof theory, logical aspects of computational complexity, finite model theory, database theory, verification and program analysis, logical foundations of programming paradigms, and logical aspects to quantum computing.

The papers in this special issue were selected from extended abstracts that appeared in the CSL 2023 conference proceedings. These abstracts were originally chosen for presentation through a competitive peer-review process, in which the programme committee accepted 34 out of 75 submissions. The journal versions presented here significantly expand on the conference papers, providing full proofs and additional results. Their topics showcase the breadth of research featured at CSL, spanning reversible computation, string diagrams, unification, proof theory, quantum computing, and type theory. Each of the five papers underwent a new round of rigorous peer review, conducted according to LMCS standards and entirely independent of the original CSL 2023 selection process.

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Guest Editors of the CSL 2023 Special Issue

All articles have already been published in the regular issues of Logical Methods in Computer Science.