

33rd EACSL Annual Conference on Computer Science Logic

CSL 2025, February 10–14, 2025, Amsterdam, Netherlands

Edited by

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■ Preface

This volume contains the papers presented at CSL 2025, the 33rd meeting in the conference series Computer Science Logic (CSL), the annual conference of the European Association for Computer Science Logic (EACSL). CSL 2025 was held from the 10th to 14th of February 2025 in Amsterdam, the Netherlands.

CSL started as a series of international workshops, and became an international conference in 1992. Previous instalments of CSL were held in Naples (2024), Warsaw (2023), Göttingen (2022, on-line), Ljubljana (2021, on-line), Barcelona (2020), Birmingham (2018), Stockholm (2017), Marseille (2016), Berlin (2015), Vienna (2014), Torino (2013), Fontainebleau (2012), Bergen (2011), Brno (2010), Coimbra (2009), Bologna (2008), Lausanne (2007), Szeged (2006), Oxford (2005), Karpacz (2004), Vienna (2003), Edinburgh (2002), Paris (2001), Munich (2000), Madrid (1999), Brno (1998), Aarhus (1997), Utrecht (1996), Paderborn (1995), Kazimierz (1994), Swansea (1993) and San Miniato (1992).

CSL is an interdisciplinary conference, spanning both basic 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 its applications, including automated deduction and interactive theorem proving, constructive mathematics and type theory, equational logic and term rewriting, automata and games, game semantics, modal and temporal logic, logical aspects of computational complexity, finite model theory, computational proof theory, logic programming and constraints, lambda calculus and combinatory logic, domain theory, categorical logic and topological semantics, database theory, specification, extraction and transformation of programs, logical aspects of quantum computing, logical foundations of programming paradigms, verification and program analysis, linear logic, higher-order logic, and non-monotonic reasoning.

The conference received 130 abstracts, of which 113 were followed up by full-paper blind submissions, one of which was later retracted. The programme committee selected 44 papers for presentation at the conference. Each paper was overseen by at least three members of the programme committee, with the crucial help of 161 external reviewers who contributed 178 of the total 350 reviews. The submission and reviewing process, programme committee discussion, and author notifications were all handled through the EasyChair conference management system.

In addition to the contributed papers, there were four invited talks, by: Patricia Bouyer-Decitre (CNRS, ENS Paris-Saclay, France), Yannick Forster (Inria Paris, France), Elaine Pimentel (University College London, UK), and Yde Venema (Universiteit van Amsterdam, the Netherlands). We thank the invited speakers for their stimulating talks and papers, which greatly contributed to the success of the conference.

One of the major regular events at CSL conferences is the presentation of the Ackermann Award: the annual EACSL award for an outstanding dissertation in the area of logic in computer science. The recipients of the award are selected by jury from a field of international nominees, and the recipients receive their award at a ceremony at which they give a prize lecture on their dissertation. This year, the jury elected to give the Ackermann Award 2024 jointly to Gaëtan Douéneau-Tabot for the PhD thesis entitled *Optimization of String Transducers*, completed at University Paris-Cité, France, in 2023, under the supervision of Olivier Carton and Emmanuel Filiot, and to Aliaume Lopez for the PhD thesis entitled *First Order Preservation Theorems in Finite Model Theory: Locality, Topology, and Limit*



Constructions, completed at École Normale Supérieure Paris-Saclay, France, in 2023, under the supervision of Jean Goubault-Larrecq and Sylvain Schmitz. The award was presented during the conference. The citation for the award is included in the proceedings.

Another significant event at CSL 2025 was the presentation of the Helena Rasiowa Award, named after the eminent Polish mathematician and logician Helena Rasiowa (1917–1994) whose work had an essential impact on the emerging field of logic in computer science. The Helena Rasiowa Award, presented for the first time at CSL 2022, is given to the best paper, as decided by the programme committee, that is written solely by students or to which students were the main contributors. There was a strong field of candidates for this award edition, with 7 of the accepted papers reported as eligible by their authors. From these, the programme committee selected two recipients for the Helena Rasiowa Award: Ioannis Eleftheriadis for the paper entitled *Extension Preservation on Dense Graph Classes*, and Daumantas Kojelis for the paper entitled *On Homogeneous Models of Fluted Languages*. Ioannis Eleftheriadis is a PhD student at the Computer Laboratory of the University of Cambridge under the supervision of Anuj Dawar, and Daumantas Kojelis is a PhD student at the University of Manchester under the supervision of Ian Pratt-Hartmann.

CSL 2025 also had two affiliated workshops: the *Logic Mentoring Workshop* (LMW@CSL) and the *Workshop on Learning and Logic* (LeaLog@CSL).

We are very grateful to all the members of the CSL 2025 programme committee and external reviewers for their careful and efficient evaluation of the submitted papers. We would also like to thank the members of the organisation committee – Wan Fokkink and Emma Triesman – for taking care to ensure a smooth-running and enjoyable conference. It was, as always, a pleasure to work with Maribel Fernandez who, as the EACSL president, provided excellent guidance. The proceedings of CSL 2025 are published as a volume in the LIPIcs series. We thank Michael Wagner and all the Dagstuhl/LIPIcs team for their ongoing support and for the high quality preparation of these proceedings. Last, but not least, we are very grateful to the Theoretical Computer Science group at the Vrije Universiteit Amsterdam and ILLC at the University of Amsterdam for supporting the organisation of this conference.

Jörg Endrullis and Sylvain Schmitz

November 29, 2024

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