

29TH WORKSHOP ON LOGIC, LANGUAGE, INFORMATION
AND COMPUTATION (WoLLIC 2023)

CO-SPONSORED BY THE ASSOCIATION FOR SYMBOLIC LOGIC

Halifax, Nova Scotia, Canada
July 11–14, 2023

The 29th Workshop on Logic, Language, Information and Computation (WoLLIC 2023) was held at the Department of Mathematics and Statistics, Dalhousie University in Halifax, Nova Scotia, Canada, July 11–14, 2023. WoLLIC 2023 was a hybrid event. It was the twenty-ninth in a series of workshops that started in 1994 with the aim of fostering interdisciplinary research in pure and applied logic.

The workshop had the financial support from Atlantic Association for Research in the Mathematical Sciences (AARMS) and the scientific sponsorship of the Association for Symbolic Logic (ASL), Association for Logic, Language and Information (FoLLI), Interest Group in Pure and Applied Logics (IGPL), European Association for Theoretical Computer Science (EATCS), European Association for Computer Science Logic (EACSL), and Brazilian Logic Society (SBL).

The Program Committee was: B. Afshari (Univ of Gothenburg, and Univ of Amsterdam) Z. Ariola (Univ of Oregon), A. Balan (Unive Politecnica of Bucharest), M. Bílková (Czech Acad of Sciences), R. Clouston (Australian National Univ), W. Conradie (Univ of the Witwatersrand), J. Desharnais (Laval Univ), D. Fernández-Duque (Univ de Barcelona), S. Figueira (Univ de Buenos Aires), S. Ghilezan (Univ of Novi Sad & Mathematical Inst SASA), S. Ghosh (Indian Statistical Inst), N. Gierasimczuk (Technical Univ of Denmark), H. H. Hansen (Univ of Groningen) (co-chair), A. Herzig (CNRS, Univ of Toulouse), J. Kontinen (Univ of Helsinki), R. Kuznets (TU Wien), M. Lewis (Univ of Bristol), J. Marti (Univ of Oxford), G. Metcalfe (Univ of Bern.), C. Nalon (Univ of Brasília), C. Olarte (Univ Sorbonne Paris Nord), S. Pinchinat (Univ of Rennes), F. Poggiolesi (CNRS, Univ Paris 1), S. Pogodalla (NRIA Nancy), R. Ramanayake (Univ of Groningen), M. Sadrzadeh (Univ College London), A. Scedrov (Univ of Pennsylvania) (co-chair), P. Scott (Univ of Ottawa), V. Sofronie-Stokkermans (Univ of Koblenz-Landau), K. Terui (Kyoto Univ), M. Vuković (Univ of Zagreb).

The Organizing Committee was: J. Ross (Dalhousie Univ), P. Selinger (Dalhousie Univ) (co-chair), A. G. de Oliveira (Univ Federal de Pernambuco, Brasil), R. de Queiroz (Univ Federal de Pernambuco, Brasil) (co-chair).

There were seven invited talks:

Thomas Bolander (Technical University of Denmark). *From dynamic epistemic logic to socially intelligent robots.*

Makoto Kanazawa (Hosei University, Japan). *Learning context-free grammars from positive data and membership queries.*

Michael Moortgat (Utrecht University, Netherlands). *Lambek calculus and its modal extensions.*

Magdalena Ortiz (University of Umeå, Sweden). *A short introduction to SHACL for logicians.*

Aybüke Özgün (University of Amsterdam, Netherlands). *Beliefs based on conflicting and uncertain evidence: connecting Dempster-Shafer theory and the topology of evidence.*

Dusko Pavlovic (University of Hawaii, USA). *From incompleteness of static theories to completeness of dynamic beliefs, in people and in bots.*

Richard Zach (University of Calgary, Canada). *The epsilon calculus in non-classical logics: recent results and open questions.*

There were four tutorial talks:

Michael Moortgat (Utrecht University, Netherlands). *Compositionality: categorial variations on a theme*

Magdalena Ortiz (University of Umeå, Sweden). *Description logics and other decidable logics for graph-structured data*

Aybüke Özgün (University of Amsterdam, Netherlands). *Dempster-Shafer theory and topological models for evidence*

Dusko Pavlovic (University of Hawaii, USA). *Prerequisites for the talk on incompleteness of static theories and completeness of dynamic beliefs, in people and in bots*

In a special session at WoLLIC 2023, there was a screening of clips from a documentary film that explores the groundbreaking achievements of African American mathematicians. *Journeys of Black Mathematicians* (zalafilms.com) is a powerful film that traces the history of these pioneering individuals and their impact on mathematics. This film is not only a tribute to their achievements, but also an inspiration for Black and other minority students to pursue their studies and consider careers in mathematics. The film is currently in production and its filmmaker, George Csicsery, connected via a remote conference tool to show excerpts from a rough cut of this film and interact with the audience.

The abstracts of papers presented at the meeting will be published in the *Logic Journal of the Interest Group in Pure and Applied Logics* (Oxford U Press). The proceedings of the meeting were published as Vol. 13923 of Springer series *Lecture Notes in Computer Science* (FoLLI subseries). The 24 full papers (21 contributed, 3 invited) published in proceedings were carefully reviewed and selected from 46 submissions.

A special issue of the *Mathematical Structures in Computer Science* (Cambridge Univ Press), guest edited by H. H. Hansen, A. Scedrov and R. de Queiroz, will include the peer-reviewed full versions of a selection of papers.

HELLE HVID HANSEN (Program Co-Chair)

ANDRE SCEDROV (Program Co-Chair)

RUY DE QUEIROZ (General Chair)

Webpage: <https://www.mathstat.dal.ca/wollic2023/>