

Introduction to the 36th International Conference on Logic Programming Special Issue II

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This is the second issue with the selected papers of the 36th International Conference on Logic Programming (ICLP 2020), held virtually in Rende (CS), Italy, from September 20 to September 25, 2020. The two issues contain 27 papers selected from several tracks of the conference program for publication in Theory and Practice of Logic Programming. The preceding issue of this volume of the journal contains a detailed editorial by the conference chairs (?), as well as the following fourteen papers selected for publication.

Papers from the Main Track.

- *Alessandro Burigana, Francesco Fabiano, Agostino Dovier and Enrico Pontelli.* Modelling Multi-Agent Epistemic Planning in ASP
- *Antonius Weinzierl, Richard Taupe and Gerhard Friedrich.* Advancing Lazy-Grounding ASP Solving Techniques – Restarts, Phase Saving, Heuristics, and More.
- *Carmine Dodaro, Thomas Eiter, Paul Ogris and Konstantin Schekotihin .* Managing caching strategies for stream reasoning with reinforcement learning
- *Elena Bellodi, Marco Alberti, Fabrizio Riguzzi and Riccardo Zese.* MAP Inference for Probabilistic Logic Programming
- *Farhad Shakerin and Gopal Gupta.* White-box Induction From SVM Models.
- *Fred Mesnard, Etienne Payet and German Vidal.* Concolic Testing in CLP
- *George Baryannis, Ilias Tachmazidis, Sotiris Batsakis, Grigoris Antoniou, Mario Alviano and Emmanuel Papadakis.* A Generalised Approach for Encoding and Reasoning with Qualitative Theories in Answer Set Programming
- *Gianvincenzo Alfano, Sergio Greco, Francesco Parisi and Irina Trubitsyna .* On the Semantics of Abstract Argumentation Frameworks: A Logic Programming Approach”.

- *Giovambattista Ianni, Francesco Pacenza and Jessica Zangari*. Incremental maintenance of overgrounded logic programs with tailored simplifications.
- *Jorge Fandinno, Vladimir Lifschitz, Patrick Lühne and Torsten Schaub*. Verifying Tight Logic Programs with anthem and Vampire
- *Laura Giordano and Daniele Theseider Dupre*'. An ASP approach for reasoning in a concept-aware multipreferential lightweight DL.
- *Pedro Cabalar, Jorge Fandinno and Yuliya Lierler*. Modular Answer Set Programming as a Formal Specification Language.
- *Pedro Cabalar, Martín Diéguez, Torsten Schaub and Anna Schuhmann*. Towards Metric Temporal Answer Set Programming
- *Richard Taupe, Antonius Weinzierl and Gerhard Friedrich*. Conflict Generalisation in ASP: Learning Correct and Effective Non-Ground Constraints

This issue contains the remaining thirteen of the papers selected for publication in the Theory and Practice of Logic Programming.

Papers from the Main Track.

- *Francesco Dagnino, Davide Ancona and Elena Zucca*. Flexible coinductive logic programming
- *Pedro Cabalar, Jorge Fandinno, Javier Garea, Javier Romero and Torsten Schaub*. eclingo: a Solver for Epistemic Logic Programs”.
- *Pierre Talbot, Eric Monfroy and Charlotte Truchet*. Modular Constraint Solver Cooperation via Abstract Interpretation
- *Roberta Costabile, Gelsomina Catalano, Bernardo Cuteri, Maria Concetta Morelli, Nicola Leone and Marco Manna*. A logic-based decision support system for the diagnosis of headache disorders according to the ICHD-3 international classification.
- *Simon Marynissen, Bart Bogaerts and Marc Denecker*. Exploiting Game Theory for Analysing Justifications.
- *Thomas Eiter and Rafael Kiesel*. ASP(AC): Answer Set Programming with Algebraic Constraints

Papers from the Applications in Logic Programming Track.

- *Esra Erdem, Müge Fidan, David Manlove and Patrick Prosser*. A General Framework for Stable Roommates Problems using Answer Set Programming.
- *Botros N. Hanna, Ly Ly Thi Trieu, Tran Cao Son and Nam T. Dinh* . An Application of ASP in Nuclear Engineering: Explaining the Three Mile Island Nuclear Accident Scenario.
- *Yusuf Izmirliglu and Esra Erdem*. Reasoning about Cardinal Directions between 3-Dimensional Extended Objects using Answer Set Programming.

Papers from the Woman in Logic Programming Track.

- *Alessio Fiorentino, Jessica Zangari and Marco Manna.* DaRLing: A Datalog rewriter for OWL 2 RL ontological reasoning under SPARQL queries.
- *Aysu Bogatarkan and Esra Erdem.* Explanation Generation for Multi-Modal Multi-Agent Path Finding with Optimal Resource Utilization using Answer Set Programming.
- *Ekaterina Komendantskaya, Henning Basold and Dmitri Rozplokhas.* The New Normal: We Cannot Eliminate the Cuts, but We Can Explore Them.
- *Momina Rizwan, Volkan Patoglu and Esra Erdem.* Human Robot Collaborative Assembly Planning: An Answer Set Programming Approach.

We wish to reiterate our thanks to all members of the conference Program Committee, the external reviewers, the leadership of the Association of the Logic Programming, the editorial board of the journal and the staff of the Cambridge University Press, and to all attendees of the conference for making the conference a success.

References

- RICCA, F., AND RUSSO, A. 2020. The 36th International Conference on Logic Programming Special Issue I. *Theory Pract. Log. Program.* 20, 5, 587–592.