

Technical Communications of the 32nd International Conference on Logic Programming

ICLP 2016, October 16–21, 2016, New York City, USA

Edited by

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This volume is dedicated to our families and loved ones, who managed to understand us doing what they really did not understand very well.

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■ Preface

The Thirty Second International Conference on Logic Programming (ICLP'16) took place in New York City, USA, from the 16th to the 21st October 2016. The main conference track run from the 18th to the 21st, and Doctoral Consortium took place on the 18th. This volume collects the Technical Communications corresponding to the presentations accepted to the Doctoral Consortium and the papers submitted to the main track of ICLP which the program committee judged of good quality, but not yet of the standard required to be accepted as conference full papers and published in the journal *Theory and Practice of Logic Programming* (<http://journals.cambridge.org/action/displayJournal?jid=TLP>). All the papers in this volume were presented in specific sessions of ICLP'16. In addition, the best Doctoral Consortium talk was given the opportunity to be presented in a slot of the main conference.

We solicited papers in all areas of logic programming, including:

- Theory: Semantic Foundations, Formalisms, Non-monotonic Reasoning, Knowledge Representation.
- Implementation: Compilation, Virtual Machines, Parallelism, Constraint Handling Rules, Tabling.
- Environments: Program Analysis, Transformation, Validation, Verification, Debugging, Profiling, Testing.
- Language Issues: Concurrency, Objects, Coordination, Mobility, Higher Order, Types, Modes, Assertions, Programming Techniques.
- Related Paradigms: Inductive and Co-inductive Logic Programming, Constraint Logic Programming, Answer-Set Programming, SAT-Checking.
- Applications: Databases, Big Data, Data Integration and Federation, Software Engineering, Natural Language Processing, Web and Semantic Web, Agents, Artificial Intelligence, Bioinformatics, and Education.

and, besides the papers for the Doctoral Consortium, we accepted three kinds of papers:

- Technical papers for technically sound, innovative ideas that can advance the state of logic programming;
- Application papers that impact interesting application domains;
- System and tool papers which emphasise novelty, practicality, usability, and availability of the systems and tools described.

We received 88 submissions of abstracts for the main conference, of which the Program Committee recommended 15 to be accepted as technical communications (TCs). The Doctoral Consortium, with a separate Program Committee, received 8 submissions, all of which were finally accepted.

We are of course indebted to the members of both Program Committees and external referees for their professionalism, enthusiasm, hard work, and promptness, despite the high load of the two rounds of refereeing. The Program Committee for ICLP and the DC were:

Marcello Balduccini	Michael Codish	Fabio Fioravanti
Mutsunori Banbara	Marina De Vos	Thom Frühwirth
Roman Barták	Agostino Dovier	John Gallagher
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Murdoch Gabbay	Max Ostrowski	Heng Zhang

We would also like to thank the full ICLP 2016 organisation committee, namely Michael Kifer and Neng-Fa Zhou, who acted as general chairs; Marcello Balduccini, who served as workshop chair; Peter Schüller, who acted as publicity chair; Paul Fodor, who organised the programming contest; and, finally, Joaquín Arias, who designed the web pages (and also raised the bar on ICLP logos).

Our gratitude must be extended to Torsten Schaub, who is serving in the role of President of the Association of Logic Programming, to all the members of the ALP Executive Committee and to Mirek Truszczyński, Editor-in-Chief of Theory and Practice of Logic Programming. Also, to the personnel at Schloss Dagstuhl – Leibniz Zentrum für Informatik, especially Marc Herbstritt, for their timely assistance. We would also like to thank Andrei Voronkov and his staff for the EasyChair system, which helped us coordinate submission, review, discussion, and notification.

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