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AI*IA 2018 – Advances in Artificial Intelligence

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of the Italian Association for Artificial Intelligence
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Proceedings

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Preface

This volume collects the contributions presented at the XVII Conference of the Italian Association for Artificial Intelligence (AI*IA 2018). The conference was held in Trento, Italy, during November 20–23, 2018. The conference is organized by AI*IA (the Italian Association for Artificial Intelligence), and it is held annually.

The conference received 67 submissions. Each paper was carefully reviewed by at least three members of the Program Committee, and finally 41 papers were accepted for publication in these proceedings.

AI*IA 2018 featured exciting keynotes by Lise Getoor, Professor of Computer Science and Director of the D3 Data Science Research Center at University of California Santa Cruz, and Malik Ghallab, Emeritus Research Director at LAAS CNRS in Toulouse. The rest of the conference program included short presentations of the accepted papers followed by poster sessions, the Doctoral Consortium, a broad choice of workshops, tutorials, panel sessions, and an open event. The list of workshops comprised the 7th Italian Workshop on Machine Learning and Data Mining (MLDM), the Second Workshop on Advances in Argumentation in Artificial Intelligence (AI³), the Workshop on Multi-Agent Systems and Social Network (MAS & SN), the R.i.C.e. R.c.A - RCRA Incontri E Confronti Workshop (RiCeRcA), the 4th Italian Workshop on Artificial Intelligence for Ambient Assisted Living (AI*AAL), the 5th Italian Workshop on Artificial Intelligence and Robotics (AIRO), and the Second Workshop on Natural Language for Artificial Intelligence (NL4AI). This edition featured for the first time a set of high-quality tutorials covering a broad spectrum of topics, namely, “Timeline-Based Planning and Execution: Theory and Practice,” “Novel Developments in Ontology-Based Data Access and Integration,” “Formal Ontological Analysis and Knowledge Representation,” “Adversarial Machine Learning and Probabilistic Knowledge Representation in Machine Learning.” Another novelty of this year’s edition was the assignment of a best paper award, assigned to “A Generalized Framework for Ontology-Based Data Access” by Elena Botoeva, Diego Calvanese, Benjamin Cogrel, Julien Corman, and Guohui Xiao, and of a best student paper award, assigned to “The Role of Coherence in Facial Expression Recognition” by Lisa Graziani, Stefano Melacci, and Marco Gori. In accordance with the practice of the last AI*IA conferences, the program was complemented by an open event targeted at the general public concerning the impact of artificial intelligence on society. Within this event, titled “Angeli e Demoni dell’Intelligenza Artificiale: evoluzioni possibili e impatti sulla nostra vita,” expert panelists, including Carlo Casonato, Michela Milano, François Pachet, Piero Poccianti, and Francesco Profumo, discussed what is happening in the artificial intelligence field, with particular emphasis on the opportunities, challenges, potential threats, and national and international strategies it is generating in different sectors of society.

The chairs wish to thank the Program Committee members and the reviewers for their invaluable work in reviewing the contributions, and the organizers of all workshops, tutorials, panels and of the Doctoral Consortium for contributing to the success of the conference. Special thanks go to the Organizing Committee for managing this event in a very competent and professional way. Last but not least, we would like to thank the proceedings chair, Paolo Dragone, for putting these proceedings together.

November 2018

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