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# AI\*IA 2017 Advances in Artificial Intelligence


XVIth International Conference  
of the Italian Association for Artificial Intelligence  
Bari, Italy, November 14–17, 2017  
Proceedings

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ISSN 0302-9743                      ISSN 1611-3349 (electronic)  
Lecture Notes in Artificial Intelligence  
ISBN 978-3-319-70168-4              ISBN 978-3-319-70169-1 (eBook)  
<https://doi.org/10.1007/978-3-319-70169-1>

Library of Congress Control Number: 2017959750

LNCS Sublibrary: SL7 – Artificial Intelligence

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The registered company is Springer International Publishing AG  
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

## Preface

This volume collects the contributions presented at the XVI International Conference of the Italian Association for Artificial Intelligence (AI\*IA 2017) that was held in Bari, Italy, during November 14–17, 2017. The conference is the yearly event organized by AI\*IA (the Italian Association for Artificial Intelligence).

The conference received 91 submissions by authors from 18 countries. Each paper was carefully reviewed by at least three members of the Program Committee. The final outcome was the acceptance of 39 papers for presentation at the conference, yielding an acceptance rate of about 40%. The significant effort spent by the community in the review process involved 97 researchers whose commitment and technical quality mainly contributed to the excellence of the body of work presented here.

AI\*IA 2017 hosted a significant number of relevant events, starting with the exciting keynotes by Carla P. Gomes, Cornell University (USA), and Peter W.J. Staar from IBM Laboratories Zurich (Switzerland). The conference program also included an unprecedentedly large set of interesting workshops: AIRO, the Workshop on Artificial Intelligence and Robotics; AI\*AAL.it, the Third Italian Workshop on Artificial Intelligence for Ambient Assisted Living; AI\*CH, the Artificial Intelligence for Cultural Heritage workshop; AI<sup>3</sup>, the Workshop on the Advances in Argumentation in Artificial Intelligence; CeX, the Workshop on Comprehensibility and Explanation in AI and ML; MLDM, the 6th Italian Workshop on Machine Learning and Data Mining; NL4AI, the Workshop on Natural Language for Artificial Intelligence; RCRA, the International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion; as well as WAIAH, the Workshop on Artificial Intelligence with Application in eHealth.

Moreover, AI\*IA 2017 featured the traditional Doctoral Consortium. Finally, three panels completed the program. Two were organized in collaboration with, respectively, the GULP (the Italian Chapter of the Association for Logic Programming) and AISC (the Italian Association for Cognitive Sciences), and targeted to an audience of experts. Conversely, the third was an educational event open to the public (mainly to students from the last year of secondary school and the first years of university) concerning the impact of AI on society, and proposing a unified view of AI, economy, and ecology.

The chairs wish to thank the Program Committee members and the reviewers for their invaluable work in reviewing, the organizers of all workshops held at the conference, as well as the workshop chairs, the Doctoral Consortium chair, and the industrial liaisons chair for their help in organizing the conference. Moreover, a wishful thanks to the conference sponsors that supported the conference and enabled different important social initiatives (among which student grants and technical awards).

Finally, many thanks to the Organizing Committee for the huge effort dedicated to the conference ideas, economics, and logistics.

November 2017

Floriana Esposito  
Roberto Basili  
Stefano Ferilli  
Francesca A. Lisi

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