

ECAI 2016

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Introduction

This volume contains the proceedings of the Twenty-second European Conference on Artificial Intelligence (ECAI 2016), held from August 29th to September 2nd, 2016, in The Hague, The Netherlands. Since 1974, the biennial European Conference on Artificial Intelligence, organized by the European Association for Artificial Intelligence (EurAI, formerly named ECCAI), has been the premier venue for presenting AI research in Europe. ECAI is the place for researchers and practitioners of Artificial Intelligence (AI) to gather and to discuss the latest trends and challenges in all subfields of AI as well as to demonstrate innovative applications and uses of advanced AI technology.

ECAI 2016 was co-located with Collective Intentionality X, the interdisciplinary conference on collective intentionality, and the IEEE Symposium on Ethics of Autonomous Systems (SEAS Europe). As in the past, ECAI 2016 incorporates the Conference on Prestigious Applications of Intelligent Systems (PAIS 2016) and the Starting AI Researcher Symposium (STAIRS). The papers from PAIS are included in this volume, while the papers from STAIRS are published in a separate volume. ECAI 2016 also featured a special topic on Artificial Intelligence for Human Values, with a dedicated track and a public event in the Peace Palace in The Hague.

The program of ECAI 2016 included five invited plenary talks, including two, by Michael Bratman and Johanna Seibt, shared with Collective Intentionality X, and an extensive workshop and tutorial program.

In total, 656 papers were submitted to ECAI 2016. Of these, 177 (27%) were accepted as long papers and 123 (19%) were accepted as short papers, of which 108 were presented at the conference. This makes ECAI 2016 the largest edition in the 40-year history of ECAI conferences, reflecting the growth and vitality of AI as a research field. This year we pioneered the idea of supporting continuity of the peer reviewing process, by allowing authors to submit resubmissions of papers rejected from IJCAI 2016, alongside their reviews from that conference. We also introduced a Summary Reject process, enabling Senior Program Committee (SPC) members to use their knowledge and experience to help to reduce the load on reviewers. We also tried a new process of allocating papers to Program Committee (PC) members, in which SPCs allocated papers to a team of PC members that they had recruited themselves, in order to encourage team-working. Thanks to the dedicated support of SPC and PC members, these innovations worked well. Out of the short paper acceptances, 12 (9.8%) and out of the accepted long papers, 31 (17.4%) were former IJCAI submissions. Clearly people took advantage of the opportunity, and a large proportion of their revised submissions were rewarded by success. During the paper discussion period, four papers were given the option of transferring to PAIS. The PAIS programme consisted of 10 papers presenting substantial applications of AI research.

We were lucky to be part of a dedicated team. We would like to thank Meir Kalech for putting in place an extensive workshop program of 18 workshops; Sophia Ananiadou and Leon van der Torre for attracting 13 exciting tutorials, including 5 “Spotlight” tutorials; Helena Sofia Pinto and David Pearce for developing an exciting STAIRS 2016 program; Jeroen van den Hoven and Henry Prakken for managing the AI and Human Values Track; Robert-Jan Sips for organising the AIckathon, and last but not least Eyke Hullermeijer and Paolo Bouquet for chairing PAIS 2016.

We would also like to thank the local organizers, Frank Dignum and Virginia Dignum, and the General Chair, Frank van Harmelen. We are indebted to our predecessor, Torsten Schaub, whose materials we found helpful, and Thomas Preuss for help and advice in using the Confmaster system. Finally, heartfelt thanks to all PC and SPC members, reviewers, sponsors, and all authors who submitted to ECAI 2016.

Maria Fox and Gal A. Kaminka
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