

Lecture Notes in Artificial Intelligence

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Preface

Lately, there has been tremendous growth in the field of artificial intelligence (AI) in general and in multi-agent systems research in particular. Problems arise where decisions are no longer made by a center but by autonomous and distributed agents. Such decision problems have been recognized as a central research agenda in AI and a fundamental problem in multi-agent systems. Resolving these problems requires that different scientific communities interact with each other, calling for collaboration and raising further important interdisciplinary questions. Against this background, a new conference, the International Conference on Distributed Artificial Intelligence (DAI), has been organized since 2019. DAI aims at bringing together international researchers and practitioners in related areas including general AI, multi-agent systems, distributed learning, computational game theory, etc., to provide a high-profile, internationally renowned forum for research in the theory and practice of distributed AI.

This year, we received 31 submissions. Despite the relatively small number of submissions, the authors represented various countries including China, the USA, Israel, Italy, Germany, the UK, and New Zealand. Each paper was assigned to three Program Committee (PC) members. We ensured that each paper received at least three reviews. Given the reviews, the final decisions were made based on the discussion and consensus of the Program Committee with the chairs.

After the first round of reviewing, 10 out of 31 papers were accepted. Since there was a good number of borderline papers with reasonably good support from the reviewers, we decided to give conditional acceptance to another five borderline papers which were significantly revised by the authors according to the reviews and were reviewed again by the chairs before being accepted. The topics of the accepted papers include reinforcement learning, multi-agent learning, distributed learning systems, deep learning, applications of game theory, multi-robot systems, human-agent interaction, signaling and information design, etc.

We were delighted to have Craig Boutilier (Google Research, USA), Bart Selman (Cornell University, USA), and Julie Shah (Massachusetts Institute of Technology, USA) to offer us great keynote, and also to have Adam Tauman Kalai (Microsoft Research, USA), Olga Megorskaya (Tolaka, Russia), and Osher Yadgar (Amdocs, Israel) to offer us great talks from industry.

Lastly, we would like to sincerely thank the conference committee and the Program Committee for their great help in making DAI 2021 another successful event.

December 2021

Christopher Amato
Dengji Zhao
Jie Chen
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