Chairs' Welcome

The Autonomous Agents and MultiAgent Systems (AAMAS) conference series brings together researchers from around the world to share the latest advances in the field. It is the premier forum for research in the theory and practice of autonomous agents and multi-agent systems. AAMAS 2002, the first of the series, was held in Bologna, followed by Melbourne (2003), New York (2004), Utrecht (2005), Hakodate (2006), Honolulu (2007), Estoril (2008), Budapest (2009), Toronto (2010), Taipei (2011), Valencia (2012), Saint Paul (2013), Paris (2014), Istanbul (2015), and Singapore (2016). This volume constitutes the proceedings of AAMAS 2017, the sixteenth conference in the series, held in São Paulo in May 2017.

AAMAS 2017 invited submissions for a general track and five special tracks: Innovative Applications, Robotics, Embodied Virtual Agents and Human-Agent Interaction, and Blue Sky Ideas, along with a track to present papers from JAAMAS (the Journal of Autonomous Agents and Multiagent Systems) that had not previously been presented at a major conference. The special tracks were chaired by leading researchers in their corresponding fields: Paul Scerri and Pradeep Varakantham chaired the Innovative Applications track, Chris Amato and Alessandro Farinelli the Robotics track, Catherine Pelachaud the Embodied Virtual Agents and Human-Agent Interaction track, and Vincent Conitzer the Blue Sky Ideas track. One of us (Kate Larson) solicited papers for the JAAMAS Presentation Track from the papers that appeared in JAAMAS from the preceding 12 months.

Jointly with the program chairs, the special track chairs were responsible for appointing the Senior Program Committee (SPC) members, who in turn helped identify the strong and diverse Program Committee (PC) members for their tracks. Every paper was reviewed by at least 3 PC members, overseen by an SPC member who ensured reviews were clear and informative. After authors were given an opportunity to respond to the reviewers, the SPC member led a discussion where the reviewers considered each others', and the authors', comments to converge on a recommendation to the Track chairs. The Track chairs in turn worked with the program chairs to make final decisions about acceptance for the papers, to ensure uniformly high quality. The JAAMAS presentation Track submissions published as extended abstracts were handled by the track chair.

AAMAS 2017 attracted a good number of high-quality submissions: the overall acceptance rate for full papers was 27% (155 out of 567 submissions were accepted) and for extended abstracts was 21%. Of the 567 submissions, 356 (63%) had a student as the primary author, and 82 of these (23%) were accepted as full papers, and an additional 91 (26%) as extended abstracts. A breakdown by track, including extended abstracts appearing in the final proceedings, is as follows:

Track	Reviewed	Appearing as full paper		Appearing as Extended Abstract	
Main	457	127	28%	97	21%
Innovative Applications	30	8	27%	4	13%
Robotics	40	11	28%	8	20%
Embodied Virtual Agents and Human-Agent Interaction	25	8	32%	12	19%
Blue Sky Ideas	15	1	7%	-	-
JAAMAS Presentation	7	7	100%	-	-

While all the accepted papers are of very high quality, a select few were nominated for the Best Paper Award and the Pragnesh Jay Modi Best Student Paper Award. The Best Paper Award was presented at the conference to the best paper, and the Pragnesh Jay Modi Best Student Paper Award was given to the best of the remaining papers primarily authored by a student. The nominees for these awards are listed below, alphabetically by the first author's last name; papers primarily authored by a student are marked with an asterisk (*).

*Daniel Claes, Frans Oliehoek, Hendrik Baier, and Karl Tuyls.

Decentralized Online Planning for Multi-Robot Warehouse Commissioning

*Arnold Filtser and Nimrod Talmon.

Distributed Monitoring of Election Winners

*Zhiyuan Li, Yicheng Liu, Pingzhong Tang, Tingting Xu, and Wei Zhan.

Stability of Generalized Two-Sided Markets with Transaction Thresholds

*Peta Masters and Sebastian Sardina.

Cost-Based Goal Recognition for Path-Planning

Matthias Scheutz, Evan Krause, Brad Oosterveld, Tyler Frasca, and Robert Platt.

Spoken Instruction-Based One-Shot Object and Action Learning in a Cognitive Robotic Architecture

*Adrian Šošić, Wasiur R. KhudaBukhsh, Abdelhak M. Zoubir, and Heinz Koeppl.

Inverse Reinforcement Learning in Swarm Systems

*Amulya Yadav, Bryan Wilder, Eric Rice, Robin Petering, Jaih Craddock, Amanda Yoshioka-Maxwell, Mary Hemler, Laura Onasch-Vera, Milind Tambe, and Darlene Woo.

Influence Maximization in the Field: The Arduous Journey from Emerging to Deployed Application

These papers, and all other full papers were presented orally in 20 minute slots; all extended abstracts and, optionally, full papers were presented as posters during the conference. These proceedings also contain the extended abstracts of 13 Demonstrations and 26 submissions accepted to the Doctoral Consortium, as well as abstracts of the invited talks and details of some of the awards presented.

We would like to thank the authors for submitting a large number of top quality papers and the Track chairs, SPC members, PC members, and a host of additional reviewers for their dedication in evaluating the submissions and for engaging in all the technical discussions held during the reviewing process. We also thank Emma Norling for arranging these conference proceedings, and Jaime Sichman and all the members of the local committee for organizing the venue and the website of the conference, as well as the social program. Finally, we also would like to thank the whole of the AAMAS 2017 organization team for their work in making AAMAS 2017 a rich and exciting event: in addition to the main conference, demonstrations, and Doctoral Consortium program captured in these proceedings, there were also a wide range of workshops and tutorials.

Sanmay Das and Ed Durfee
AAMAS 2017 Program Co-Chairs

Kate Larson and Michael Winikoff
AAMAS 2017 General Co-Chairs