

# Introduction

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), and Istanbul (2015). This volume constitutes the proceedings of AAMAS 2016, the fifteenth conference in the series, held in Singapore in May 2016.

In line with previous editions, AAMAS 2016 attracted submissions for a general track and five special tracks: Innovative Applications, Robotics, Embodied Virtual Agents and Human-Agent Interaction, Blue Sky Ideas track, and the JAAMAS presentation track. The special tracks were chaired by leading researchers in their corresponding fields: Onn Shehory and Noa Agmon chaired the Innovative Applications track, Francesco Amigoni and Roderich Gross the Robotics track, Tim Bickmore and Hannes Vilhjálmsón the Embodied Virtual Agents and Human-Agent Interaction track, and Frank Dignum the Blue Sky Ideas track. As a new initiative, the chairs of AAMAS 2016 also solicited articles published in the *Journal of Autonomous Agents and Multiagent Systems* for the *JAAMAS Presentation Track*. Only papers that have appeared in the *Journal of Autonomous Agents and Multi-agent Systems* (JAAMAS) in the 12 months period preceding the AAMAS notification date were eligible. This new track was chaired by Peter Stone.

Jointly with the PC chairs the special track chairs were responsible for appointing the Programme Committee (PC) members and the Senior Programme Committee members (SPC) for their tracks, and they made acceptance/rejection recommendations for their tracks in consultation with Programme Chairs based on input provided by the track PC, SPC, and Area Experts. This year the PC chairs introduced the new role of Area Experts, i.e., SPC members with additional responsibilities, to assist with selecting SPC members for specific research areas, identifying appropriate keywords, and assisting in potential issues during discussion phase. This new role was a success and increased the quality of our SPC and PC, and also the reviewing process in general.

Full paper submissions (8 pages plus bibliographic references) and Blue Sky Ideas paper submissions (4 pages plus references) were solicited for AAMAS 2016. Some of the full paper submissions were accepted as extended abstracts (2 pages). The papers were selected by means of a thorough review and discussion process, which included an opportunity for authors to respond to reviewer comments during a rebuttal phase. All SPC members, Area Experts, and Track Chairs followed and contributed to the technical discussions on the papers they were overseeing. The JAAMAS presentation Track submissions published as extended abstracts were handled by the track chair.

AAMAS 2016 attracted a good number of high-quality submissions; the result of the reviewing process is summarised by the following table:

<i>Track</i>	<i>Reviewed</i>	<i>Accepted as full paper</i>		<i>Accepted as Extended Abstract</i>	
Main	411	109	27%	97	24%
Innovative Applications	38	10	26%	12	31%
Robotics	46	10	22%	14	30%
Embodied Virtual Agents and Human-Agent Interaction	42	7	17%	8	19%
Blue Sky Ideas	13	1	8%	0	0%
JAAMAS Presentation	16	16	100%	-	-

Overall, out of 550 submissions, 137 (25%) were accepted as full papers and 143 (26%) were accepted as extended abstracts. Additionally, all 16 JAAMAS track submissions were accepted.

The acceptance rates by a paper's primary high-level keyword from the conference topics of interest (not including JAAMAS Presentation Track) are as follows:

<i>Topic</i>	<i>Reviewed</i>	<i>Accepted as full paper</i>		<i>Accepted as Extended Abstract</i>	
Agent Theories and Models	50	11	22%	7	14%
Communication and Argumentation	16	6	37%	2	12%
Cooperation	48	5	10%	14	29%
Agent Societies and Societal Issues	34	4	12%	12	35%
Knowledge Representation and Reasoning	28	4	14%	10	36%
Learning and Adaptation	49	16	33%	13	26%
Economic Paradigms	127	43	34%	30	24%
Social simulation	19	3	16%	7	37%
Engineering Multi-Agent Systems	14	3	21%	3	21%
Agents & Mainstream Computing	4	0	-	0	-
Verification and Validation of Agent-Based Systems	12	5	42%	3	25%
Robotics	56	12	21%	13	23%
Blue Sky	4	1	25%	0	-
Innovative Applications	40	13	32%	9	22%
Virtual Agents and Humans	49	10	20%	10	20%

Full papers were presented orally in 20 minute slots; all extended abstracts and, optionally, full papers were presented as posters during the conference.

Out of the 550 submissions, 351 (64%) had a student as the primary author, 82 of these were accepted as full papers (23%), and a further 90 (26%) were accepted as extended abstracts.

The proceedings also contain 17 Demonstration papers, 13 Doctoral Consortium papers, as well as abstracts of the invited talks and details of some of the awards given.

We would like to thank the authors in our and nearby communities for submitting a large number of top quality papers and the PC, SPC members, Area Experts and Track Chairs for their dedication in reviewing the submissions and for engaging in all the technical discussions held during the reviewing process. We'd like to express our gratitude to Dave Shield for assisting us with Confmaster throughout the entire process. We also thank Jie Zhang for arranging the conference proceedings and Pradeep Varakantham and all the members of the local committee for organizing the venue, the website of the conference, as well as the social program.

**John Thangarajah and Karl Tuyls**  
*AAMAS 2016 Program Co-Chairs*

**Catholijn Jonker and Stacy Marsella**  
*AAMAS 2016 General Co-Chairs*