Chairs' Welcome

The Autonomous Agents and Multiagent Systems (AAMAS) conference series gathers 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 multiagent 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), Singapore (2016), São Paulo (2017), Stockholm (2018) and Montréal (2019). This volume is the proceedings of AAMAS 2020, the 19th conference in the series, which was to be held in Auckland in May 2020.

AAMAS 2020 invited submissions for a general track, a Blue Sky Ideas track, and a track to present papers from JAAMAS (the journal Autonomous Agents and Multi-Agent Systems) that had not previously been presented at a major conference. The Blue Sky Ideas track was chaired by Alessandro Ricci and Juan Antonio Rodriguez. Rym Zalila-Wenkstern and Pınar Yolum solicited papers for the JAAMAS Presentation Track from the papers that appeared in JAAMAS within the preceding 12 months.

A group of Area Chairs (AC) was selected to help oversee the review process of the main track. The ACs performed an initial check of submissions and recommended summary rejection of those that did not meet the AAMAS scope, submission or formatting instructions.

Jointly with the program chairs, the chairs of the ten areas were responsible for appointing Senior Program Committee (SPC) members, who in turn helped identify a strong and diverse set of Program Committee (PC) members. PC could review for more than one area. Every paper was reviewed by at least three 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. The area chairs in turn worked with the program chairs to make final decisions about acceptance for the papers, to ensure uniformly high quality.

AAMAS 2020 attracted a good number of high-quality submissions: the overall acceptance rate for full papers was 23% (186 out of 808 reviewed submissions were accepted). A breakdown of the acceptances by area and also the Blue Sky Ideas track is as follows:

Area	*Reviewed*	*Full Paper*		*Extended Abstract*	
Coordination, Organizations, Institutions and Norms	52	7	13%	9	17%
Engineering Multi-Agent Systems	36	6	17%	8	22%
Humans and AI / Human-Agent Interaction	76	17	22%	11	14%
Innovative Applications	39	6	15%	4	10%
Knowledge Representation, Reasoning and Planning	79	22	28%	8	10%
Learning and Adaptation	226	53	23%	38	17%
Markets, Auctions, and Non-Cooperative Game Theory	99	28	28%	16	16%

Modelling and Simulation of Societies	51	8	16%	10	20%
Robotics	69	11	16%	12	17%
Social Choice and Cooperative Game Theory	81	28	35%	13	16%
Blue Sky Ideas	31	8	26%	–	–

The top 20% of accepted papers from the main track were nominated for an expedited review process at JAAMAS for authors interested in submitting a longer journal article describing their work.

The eight JAAMAS extended abstracts were reviewed by the track chair.

While all the accepted papers are of high quality, a selected few papers from the main track 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 Best Student Paper Award was sponsored by Springer. 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 (*). These papers were also nominated for expedited review at the Journal of Artificial Intelligence Research (JAIR).

* Harshavardhan Kamarthi, Priyesh Vijayan, Bryan Wilder, Balaraman Ravindran, Milind Tambe
Influence Maximization in Unknown Social Networks: Learning Policies for Effective Graph Sampling

* Divya Ramesh, Anthony Z. Liu, Andres J. Echeverria, Jean Y. Song, Nicholas R. Waytowich, Walter S. Lasecki
Yesterday's Reward is Today's Punishment: Contrast Effects in Human Feedback to Reinforcement Learning Agents

* Klaus Weber, Kathrin Janowski, Niklas Rach, Katharina Weitz, Wolfang Minker, Stefan Ultes, Elisabeth André
Predicting Persuasive Effectiveness for Multimodal Behavior Adaptation using Bipolar Weighted Argument Graphs

* Shangtong Zhang, Wendelin Boehmer, Shimon Whiteson
Deep Residual Reinforcement Learning

In addition, the IFAAMAS Influential Paper award was presented at the conference for the following two papers:

Ariel D. Procaccia and Moshe Tennenholtz. Approximate Mechanism Design without Money. In *Proceedings of the 10th ACM Conference on Electronic Commerce*, pp. 177-186, 2009.

Kurt M. Dresner and Peter Stone. A Multiagent Approach to Autonomous Intersection Management. *Journal of Artificial Intelligence Research*, vol 31, pp. 591-656, 2008.

Due to travel restrictions around the COVID-19 pandemic, papers were presented virtually using the underline.io platform. The videos were available for open public access until the end of 2020.

These proceedings also contain the extended abstracts of 11 Demonstrations, and 23 submissions accepted to the Doctoral Consortium, as well as abstracts of the invited talks and details of some of the awards presented.

The keynote speakers for AAMAS were Carla P. Gomes (Cornell University), Thore Graepel (Google DeepMind), Alison Heppenstall (University of Leeds) and Sergey Levine (UC Berkeley). The ACM SIGAI Autonomous Agents Research Award talk was delivered by Muninder P. Singh (North Carolina State University), and Dominik Peters (Ph.D at University of Oxford, 2019) gave the Victor Lesser Dissertation Award presentation.

We would like to thank the authors for submitting a large number of top quality papers and the track chairs, area 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 William Yeoh for arranging these conference proceedings, Thomas Preuss for providing Confmaster technical support, Davis Dimalen for designing and maintaining the conference website, as well as Quan Bai, Jiamou Liu, Weihua Li and all the local arrangements assistants, especially during the uncertainty around the change from in-person to virtual conference.

Finally, we also would like to thank the whole AAMAS 2020 organization team for their work in making AAMAS 2020 a rich and exciting event; in addition to the main conference, demonstrations, and Doctoral Consortium program captured in these proceedings, there was also a tutorial program and a workshop program.

Amal El Fallah Seghrouchni and Gita Sukthankar
AAMAS'20 General Chairs

Bo An and Neil Yorke-Smith
AAMAS'20 Program Chairs