

Awards

AUTONOMOUS AGENTS RESEARCH AWARD

The *ACM/SIGAI Autonomous Agents Research Award* is an annual award for excellence in research in the area of autonomous agents. The award is intended to recognise researchers in autonomous agents whose current work is an important influence on the field. It is an official ACM award, funded by an endowment created from the proceeds of the Autonomous Agents conferences.

Recipient: The selection committee for the ACM/SIGAI Autonomous Agents Research Award is pleased to announce that Professor Catholijn Jonker is the recipient of the 2024 award.

Citation: Professor Catholijn Jonker is full professor of Interactive Intelligence at the Faculty of Electrical Engineering, Mathematics, and Computer Science of the Delft University of Technology. Professor Jonker is a leader in the field of human-machine interaction, in particular regarding modeling the cognitive processes and concepts involved in negotiation and teamwork. Professor Jonker initiated the Automated Negotiating Agents Competition at AAMAS and IJCAI. She has also contributed to other research domains such as integrating interactive intelligence for hybrid intelligent systems. She is also very active in advancing research into value-sensitive and responsible AI. She is very much involved in promoting women in academic positions. She chaired the Network of Female Professors. She is a role model for many young researchers. Her research is highly visible and praised. Professor Jonker received numerous awards. She was the past President of IFAAMAS.

INFLUENTIAL PAPER AWARD

The *IFAAMAS Influential Paper Award* seeks to recognise publications that have made influential and long-lasting contributions to the field. Candidates for this award are papers that have proved a key result, led to the development of a new subfield, demonstrated a significant new application or system, or simply presented a new way of thinking about a topic that has proved influential.

This year's award committee selected two papers (not ordered) to be recognised with an IFAAMAS Influential Paper Award.

Paper: Peyman Faratin, Carles Sierra, Nicholas R. Jennings. Negotiation decision functions for autonomous agents. *Robotics and Autonomous Systems*, Vol. 24, No. 3-4, pp. 159–182, 1988.

Citation: Faratin, Sierra, and Jennings published a highly influential contribution to agent research through a seminal article on agent negotiation. As of today, the article has received 1681 citations. Together with Rosenschein's and Zlotkin's "Rules of Encounter," this article set the foundations for the field of automated negotiation

and nowadays underpins most of the current research on the topic. In fact, the research issues posed in the article continue to guide the research on agent negotiation. As a matter of fact, the aims of the "Automated Negotiating Agents Competition", run in the realm of the AAMAS conference (since 2010), were already outlined in this paper. The recent interest in Diplomacy and the Hanabi challenge has revived the interest in agent negotiation, which is called to play a fundamental role in cooperative artificial intelligence in the future.

Paper: Leonid Peshkin, Kee-Eung Kim, Nicolas Meuleau, Leslie Pack Kaelbling. Learning to cooperate via policy search. In: *Proceedings of the 16th Conference on Uncertainty in Artificial Intelligence*, Stanford, California, pages 489–496, July 2000.

Citation: This paper makes a simple, but critical observation: in decentralized settings, like Dec-POMDP, the 'policy gradient' is decentralizable. This means that when taking the normal centralized policy gradient and inspecting what information is needed to update the parameters of some agent i , it turns out that this gradient does not depend on any information of other agents. This is a very important result, because it implies that agents can implement decentralized learning - only needing to observe the team reward - with guarantees of converging to a local optimum. This stands in stark contrast to value-based methods, such as Q-learning using individual information, for which no such results are known. It also provides an explanation of the large success that actor-critic methods have been having in recent years, and has been a key building block in many methods.

DISTINGUISHED DISSERTATION AWARD

The *Victor Lesser Distinguished Dissertation Award* is given for dissertations in the field of autonomous agents and multiagent systems that show originality, depth, impact, as well as quality of writing, supported by high-quality publications.

The recipient of the 2023 IFAAMAS Victor Lesser Distinguished Dissertation Award is Dr. Niclas Boehmer, whose thesis entitled "Application-Oriented Collective Decision-Making: Experimental Toolbox and Dynamic Environments" was supervised by Prof. Rolf Niedermeier and by Dr. Markus Brill at TU Berlin. The selection committee also decided to recognise two further nominees (not ordered), namely Dr. Gabriele Farina for his thesis "Game-Theoretic Decision Making in Imperfect-Information Games: Learning Dynamics, Equilibrium Computation, and Complexity" supervised by Prof. Tuomas Sandholm at Carnegie Mellon University, and Dr. Evi Micha for his thesis "Fair and Efficient Social Decision Making" supervised by Dr. Nisarg Shah at the University of Toronto.

BEST PAPER AWARDS

Amongst the many excellent submission received, the conference will honour two of the full papers in the main track with awards: the *Best Paper Award* (for which all papers are eligible), and the *Pragnesh Jay Modi Best Student Paper Award* (for a paper with a principal author who is a student).

The three papers listed below are finalists for the *Best Paper Award*:

- Yaoxin Ge, Yao Zhang, Dengji Zhao, Zhihao Gavin Tang, Hu Fu and Pinyan Lu. Incentives for Early Arrival in Cooperative Games.
- Evan Albers, Mohammad Irfan and Matthew Bosch. Beliefs, Shocks, and the Emergence of Roles in Asset Markets: An Agent-Based Modeling Approach.
- Grant Forbes, Nitish Gupta, Leonardo Villalobos-Arias, Colin Potts, Arnav Jhala and David Roberts. Potential-Based Reward Shaping for Intrinsic Motivation.

The three papers listed below are finalists for the *Pragnesh Jay Modi Best Student Paper Award*:

- Junqi Jiang, Francesco Leofante, Antonio Rago and Francesca Toni. Recourse under Model Multiplicity via Argumentative Ensembling.
- Gauri Gupta, Ritvik Kapila, Ayush Chopra and Ramesh Raskar. First 100 days of pandemic; an interplay of pharmaceutical, behavioral and digital interventions - A study using agent based modeling.

- Chenyuan Zhang, Charles Kemp and Nir Lipovetzky. Human Goal Recognition as Bayesian Inference: Investigating the Impact of Actions, Timing, and Goal Solvability.

The winners will be announced during the conference banquet.

The Pragnesh Jay Modi Best Student Paper Award is generously supported by Springer.

BLUE SKY IDEAS AWARD

The focus of the Blue Sky Ideas track is on visionary ideas, long-term challenges, new research opportunities, and controversial debate. It serves as an incubator for innovative, risky, and provocative ideas, and it aims at providing a forum for publishing and presenting such ideas without being constrained by the result-oriented standards followed for the main track of the conference.

At the conference, one of the papers submitted to this special track will receive the *Blue Sky Ideas Award*.

The Blue Sky Ideas track is generously supported by the Computing Community Consortium (CCC).

BEST DEMO AWARD

The *Best Demo Award* will be bestowed upon the authors of the most applicable and innovative contribution to the Demonstration track. The winner will get announced during the conference banquet.