13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2014)

http://aamas2014.lip6.fr

Marriott Rive Gauche
Paris, France

May 5-9, 2014

Important dates

Electronic Abstract Submission: October 8, 2013 (11:59 PM HST)
Full Paper and Extended Abstract Submission: October 11, 2013 (11:59 PM HST)
Rebuttal Phase: November 29 - December 2, 2013 (11:59 PM HST)
Author Notification: December 20, 2013

About AAMAS

AAMAS is the leading scientific conference for research in autonomous agents and multiagent systems. The AAMAS conference series was initiated in 2002 by merging three highly respected meetings: the International Conference on Multi-Agent Systems (ICMAS); the International Workshop on Agent Theories, Architectures, and Languages (ATAL); and the International Conference on Autonomous Agents (AA). The aim of the joint conference is to provide a single, high-profile, internationally respected archival forum for scientific research in the theory and practice of autonomous agents and multiagent systems.

AAMAS 2014, the thirteenth conference in the AAMAS series, seeks high-quality submissions of full papers, limited to 8 pages in length. Submissions will be rigorously peer reviewed and evaluated on the basis of originality, soundness, significance, presentation, understanding of the state of the art, and overall quality of their technical contribution. Reviews will be double blind; authors must avoid including anything that can be used to identify them. Please note that submitting an abstract is required to submit a full paper. However, the abstracts will not be reviewed and full (8 page) papers must be submitted for the review process to start. All work must be original, i.e., it must not have appeared in a conference proceedings, book, or journal. In addition to submissions in the main track, AAMAS 2014 will be soliciting papers in three special tracks. The review process for the special tracks will be similar to the main track, but with program committee members specially selected for that track. All accepted papers for the special tracks will be included in the proceedings.

Topics of Interest

Agent Communication:

- Agent commitments
- Communication languages and protocols

- Speech act theory

Agent Cooperation:

- Biologically-inspired approaches and methods
- Collective intelligence
- Distributed problem solving
- Human-robot/agent interaction
- Multi-user/multi-virtual-agent interaction
- Teamwork, coalition formation, coordination
- Incentives for Cooperation
- Multi-robot systems
- Agent Reasoning:
- Planning and Reasoning (single and multiagent)
- Cognitive models
- Knowledge representation
- Reasoning for robotic agents

Agent Societies and Societal issues:

- Artificial social systems
- Environments, organizations and institutions
- Ethical and legal issues
- Privacy, safety and security
- Social and organizational structure
- Trust, reliability and reputation

Agent Theories and Models

- Logic-based agent theories
- Epistemic logic, cooperation logics
- Belief-Desire-Intention theories
- Belief revision and announcements
- Formal models of agency

Agent-based architectures:

- service-oriented architectures
- mobile agents

Agent-based simulation:

- Artificial societies
- Emergent behavior
- Simulation techniques, tools and environments
- Social simulation

Agent-based system development:

- Agent development techniques, tools and environments
- Agent programming languages

- Agent specification or validation languages
- Design languages for agent systems
- Development environments
- P2P, web services, grid computing
- Software engineering (agent- or multi agent-oriented)
- security aspects of agent systems

Verification and Validation of agent-based systems:

- Testing of agent-based systems, including model-based testing.
- Verification of agent-based systems, including model checking.
- Automatic synthesis of protocols.
- Fault tolerance and resilience.

Agreement Technologies:

- Argumentation
- Collective decision making
- Negotiation
- Norms

Economic paradigms:

- Electronic markets
- Economically-motivated agents
- Game Theory (cooperative and non-cooperative)
- Social choice theory
- Voting protocols
- Auction and mechanism design
- Bargaining and negotiation

Humans and Agents:

- Human-robot/agent interaction
- Multi-user/multi-virtual-agent interaction
- Agents competing against humans
- Agent-based analysis of human interactions
- Agents for improving human cooperative activities

Learning and Adaptation:

- Computational architectures for learning
- Reward structures for learning
- Evolution, adaptation
- Co-evolution
- Single agent Learning
- Multi-agent Learning

Systems and Organization:

- Autonomic computing

- Complex systems
- Self-organization
- Novel agent and multiagent applications

Special tracks

In addition to the above, AAMAS 2014 will feature the following three special tracks.

Robotics (Chairs: Noa Agmon, Luiz Chaimowicz)

Papers that advance theory and applications of single and multiple robots are welcome, specifically those focusing on real robots that interact with their environment. Papers should clearly explain how the work addresses challenges in robotics, opportunities for novel applications, and fundamental research issues in autonomous robotic systems. The goal is to demonstrate the synergy achieved from integration of research in agents and robotics.

Virtual Agents (Chairs: Elisabeth Andre', Sarit Kraus)

Virtual agents are embodied agents that emulate autonomous human-like behavior in simulated interactive or physical environments. We encourage papers on the design, implementation, and evaluation of virtual agents as well as challenging applications featuring them. Of particular interest are papers addressing how humans interact with virtual agents. The goal is to provide an opportunity for continued interaction and cross-fertilization between the AAMAS community and researchers working on virtual agents and to strengthen links between the two communities.

Innovative Applications (Chairs: Tom Holvoet, Rajiv Maheswaran)

Due to the growing maturity of the field there are now agent-based applications in widespread use across many domains, responsible for the generation of significant revenues, or the saving of major costs, or for supporting important public policy and business strategy decision-making. This special track provides the ideal forum to present, discuss and demonstrate your compelling applications, agent system deployment experiences, and new business ideas. The goal is to promote the fostering of mutually-beneficial relationships between those doing foundational scientific research and those making autonomous agents and multi-agent systems a commercial or public policy reality.

General Information

All full papers accepted to the main track and the special tracks will be presented in parallel technical sessions. All the papers will be published in the conference Proceedings and will be permanently available after the conference at http://www.aamas-conference.org/proceedings.htm. In addition, AAMAS 2014 will include:

- Workshops
- Tutorials
- Demonstrations
- Posters presentations for full papers and extended abstracts
- Invited talks and panel discussions

The submission processes for the workshops, tutorials and demonstration are separate from the main paper submission process. Relevant information will be posted on the relevant pages.

Policy on multiple and previous submissions

Authors may not submit any paper to AAMAS 2014 that has already appeared in an archival forum. Authors must ensure that no submission to AAMAS 2014 is under review for another archival forum between the AAMAS submission and decision dates. Further details on this policy are reported on the AAMAS 2014 web site.