

CALL FOR PAPERS

Eleventh International Workshop on Argumentation in Multi-Agent Systems

ArgMAS 2014

www.mit.edu/~irahwan/argmas/argmas14/

Revised submission date!

Submissions are invited for the Eleventh International Workshop on Argumentation in Multi-Agent Systems (ArgMAS 2014), to be held in Paris, France, as part of AAMAS 2014.

For ArgMAS 2014, papers are solicited on the concepts, theories, methodologies, and applications of computational models of argument in creating autonomous agents and multi-agent systems. Argumentation can be abstractly defined as the formal interaction of different arguments for and against some conclusion (e.g., a proposition, an action intention, a preference, etc). A single agent may use argumentation techniques to perform individual reasoning, to resolve conflicting evidence, or to decide between conflicting goals. Multiple agents may also use dialectical argumentation in order to identify and reconcile differences between themselves, through interactions such as negotiation, persuasion, and joint deliberation.

The main goal of ArgMAS 2014 will be to bring together the community of researchers working on argumentation in multi-agent systems. The workshop has the following technical goals:

- (a) To explore the use of argumentation in practical reasoning.
- (b) To investigate how argumentation can be used to enable rational interaction between autonomous agents.
- (c) To explore the applicability of argumentation for solving a variety of problems in multi-agent systems, such as information exchange, negotiation, team formation, deliberation, etc.
- (d) To explore strategic reasoning and behaviours in argumentation-based interaction.
- (e) To better understand how argumentation relates to other areas of multiagent research, such as game theory, agent communications, and planning.
- (f) To present and encourage implemented systems which demonstrate the use of argumentation in multi-agent systems.

The workshop solicits papers looking at either theory or practice, or both. In particular, the workshop aims at bridging the gap between the vast amount of work on argumentation theory and the practical needs of multi-agent systems research.

Different agents within a multiagent system potentially have differential access to information and capabilities, different beliefs, different preferences and desires, and different goals and values. A key aspect of the scientific study of multiagent systems therefore is the development of methods and procedures for identifying, assessing, reconciling, and arbitrating between such differences. Market mechanisms and voting procedures are two methods for dealing with such differences. Argumentation theory is another. In recent years, formal theories of argument and argument interaction have been proposed, and this has led to the study of computational models of argument. The ArgMAS series of workshops has focused on computational argumentation within the context of agent reasoning and multiagent systems.

The workshop will be of interest to anyone studying or applying default reasoning in autonomous agents, single-agent reasoning and planning under uncertainty, strategic single-agent reasoning in the context of potential competitor actions, and the rational resolution of the different beliefs and intentions of multiple agents within multiagent systems.

Topics:

We solicit papers dealing with, but not limited to, the following areas:

- . Computational models for argumentation
- . Argumentation-based decision making
- . Argumentation-based joint deliberation
- . Argumentation-based persuasion
- . Argumentation-based inquiry
- . Argumentation-based negotiation and conflict resolution
- . Argumentation and risk assessment
- . Argumentation for legal reasoning
- . Argumentation for electronic democracy
- . Argumentation for coordination, cooperation and team formation
- . Argumentation and game theory in multi-agent systems
- . Human-agent argumentation
- . Argumentation and preferences modeling
- . Strategic behavior in argument-based dialogues
- . Deception, trust, reputation in argument-based interaction
- . Computational complexity of argumentation dialogues
- . Properties of argumentation dialogues (termination, success, etc.)
- . Hybrid argumentation-based models
- . Implemented argumentation-based multi-agent systems
- . New application areas.

Important Dates:

Submission Deadline (revised): 7 February 2014

Notification of Decisions: 1 March 2014

Camera-Ready Copy Due: 10 March 2014

ArgMAS Workshop: Monday 5 or Tuesday 6 May 2014

Proceedings:

The proceedings of ArgMAS will be printed and distributed at the workshop. As with previous ArgMAS workshops, it is planned to publish revised versions of the accepted full papers in an edited book as part of the Springer Lecture Notes in Computer Science (LNCS) series. This publication will have an ISBN number, and would be available both in printed form, as well as electronically in SpringerLink online.

Submission Procedure:

As with previous workshops, each ArgMAS submission will be reviewed by two members of the expert program committee. Contributors may submit either full papers (not longer than 20 pages) OR a two-page position statement that outlines their interests, background, and discussion of an aspect of the workshop theme. Authors are encouraged to submit their papers in the Springer Lecture Notes in Computer Science (LNCS) style, since this will be the format required for the planned post-proceedings book. Formatting instructions, as well as the style and sample files, can be found here:

<http://www.springer.de/comp/lncs/authors.html>

Papers submitted should be in PDF format, and must be submitted through our dedicated EasyChair site, here:

<https://www.easychair.org/conferences/?conf=argmas2014>

Submitted papers should give full names and contact details for all authors. At least one author of each accepted paper must register for the workshop.

Organization:

The workshop organizers are:

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Program Committee to be confirmed.