



SAC 2013

March 18 – 22, 2013

Coimbra, Portugal



Special Track on Cooperative Multi-Agent Systems and Applications

The ACM Symposium on Applied Computing (SAC) has been an important venue for the past twenty-seven years, attracting applied computer scientists, computer engineers, software engineers, and application developers from around the world. SAC 2013 is sponsored by the ACM Special Interest Group on Applied Computing (SIGAPP), and will be held at Coimbra, Portugal. For the first time, the ACM SAC will have a track focusing on cooperative multi-agent systems and their applications.

Cooperative multi-agent systems are groups of intelligent agents that can perceive and act in a given environment to achieve their individual and collective goals. Often, multi-agent systems (MAS) are used to solve problems that are beyond the individual capacities and knowledge of single agents. Such systems provide solutions in situations where expertise is spatially and temporally distributed, but typically do not suffer from resource limitations, performance bottlenecks or the critical failures associated with centralized problem solvers. Recently, due to the applicability of MAS to a wide spectrum of application domains, multi-robot systems and mixed human-robot teams have emerged as relevant instantiations of MAS, increasing their potential and solving challenging problems in the physical world.

The purpose of this technical track is to address methods for representing, specifying, designing, programming, deploying, and reasoning about cooperative MAS applied to real world problems, either in realistic simulations or field experiments. The agents in such systems may include virtual agents, mobile robots and/or humans. This technical track is a forum for researchers and practitioners to meet and share experiences, theoretical knowledge and discuss application domains of MAS comprising either software agents or physically embodied agents.

Topics of Interest

Coordination and cooperation	Distributed and decentralized control
Multi-agent systems (MAS)	Multi-robot systems
Mixed human-robotic teams	Real world applications of MAS
Simulation techniques, tools and environments	Distributed constraint satisfaction
MAS in mobile ad-hoc networks and sensor networks	Emergent behaviors, self-organization and learning
Scalability	Robustness and fault-tolerance

Important Dates

September 28, 2012	: Paper submission (** deadline extended **)
November 10, 2012	: Acceptance notification
November 30, 2012	: Camera-ready submission

Original papers addressing the listed topics of interest will be considered. Each submitted paper will be fully refereed and undergo a blind review process by at least three referees. Paper size is limited to **6** pages. A maximum of 2 additional pages may be included for an additional fee. The reviews will be blind: authors' names and affiliations **must not** appear in the paper and self-citations **should be** in the third person.

Accepted papers will be published in the ACM SAC 2013 proceedings. Registration for the conference is strictly required by at least one of the authors or a proxy, who must attend SAC and present the paper. This is a requirement for the paper to be included in the ACM/IEEE digital library.

Graduate students are invited to submit research abstracts (minimum of 2-page and maximum of 4-page) to the Student Research Competition (SRC), following the instructions published at SAC 2013 website.

Track website

<http://mrl.isr.uc.pt/sac2013/>

Track Chairs

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