



## CALL FOR PAPERS

### **Coordination, Organization, Institutions and Norms in Multi-Agent Systems @ MALLOW 2010 (COIN@MALLOW2010)**

**Domaine Valpré in Lyon, France  
30<sup>th</sup> August – 2<sup>nd</sup> September, 2010**

<http://ai-lab-webserver.aegean.gr/coin@mallow2010/index.htm>

#### **AIMS and SCOPE**

The development of complex AI systems with heterogeneous and diverse knowledge is a challenge. System components must interact, coordinate and collaborate to manage scale and complexity of task environments targeting persistency and maybe, evolution of systems.

Managing scale and complexity requires organized intelligence; in particular intelligence manifested in organizations of components, by individual strategies or collective behaviour. System architects have to consider: the inter-operation of heterogeneously designed, developed or discovered components (agents, objects/artefacts, services provided in an open environment); inter-connection which cross legal, temporal, or organizational boundaries; the absence of global objects or centralised controllers; the possibility that components will not comply with the given specifications; and embedding in an environment which is likely to change, with possible impact on individual and collective objectives.

The convergence of the requirement for intelligence with these operational constraints demands: coordination: the collective ability of heterogeneous and autonomous components to arrange or synchronise the performance of specified actions in sequential or temporal order; rational and open organization: a formal structure supporting or producing intentional forms of coordination, capable of managing changes in the environment in which it operates; institution: an organization where (inter alia) the performance of designated actions by empowered agents produces conventional outcomes; and norms: standards or patterns of behaviour in an institution established by decree, agreement, emergence, and so on.

The automation and distribution of intelligence is the subject of study in autonomous agents and multi-agent systems; the automation and distribution of intelligence for coordination, organization, institutions and norms is the specialised interest of COIN@MALLOW2010.

The COIN@MALLOW 2010 workshop is part of the COIN series of workshops.

## WORKSHOP GOALS

The goal of the workshop is to bring together researchers in autonomous agents and multi-agent systems and other related fields (like web services, semantic web and service oriented architectures), working on the scientific and technological aspects of organizational theory, electronic institutions, norms and computational economies from an organizational or institutional perspective. We seek to attract high-quality papers addressing all mathematical, logical and computational perspectives of, modelling, animation and simulation techniques for these types of multi-agent systems, addressing also their actual implementation.

Through various information and opinion exchange mechanisms before, during and after the workshop, we hope to generate new ideas, consolidate and develop an (already) active community, highlight future challenges and opportunities, and lead/define (at least part of) the future research agenda.

## TOPICS

Topics of particular interest for COIN@MALLOW2010 will include:

- Organizations, institutions and norms for managing scale, openness and complexity
- Organizations, institutions and norms and Service Oriented Computing/Architectures;
- Logics, languages and tools for specifying coordination and norms, implementing or simulating organizations and institutions;
- Formal lifecycle models: formation, maintenance, and dissolution of organizations and institutions;
- Law of electronic institutions: regulatory compliance, penalty and sanctions, dispute resolution and conflict prevention;
- Agent environments: physical and institutional 'resources' for physical capability and institutional power;
- Formal methods for specifying coordination and organizational structures; models for verification, validation and visualisation;
- Non-normative behaviour, error-recovery, and reliable computing with unreliable components;
- Frameworks and protocols for organised and organisational adaptation;
- Discovery, openness and inter-operation in organizations and institutions;
- Analysis of issues in the emergence, evaluation (as fit-for-purpose), compliance to and evolution of norms;
- Mixed human-agent coordination and institutions in embedded systems and virtual worlds.

**NEW** Given that we would like to have a very interactive workshop where authors can compare and discuss their ideas we invite also the submission of "**position papers**" on COIN topics (please add a footnote in the title of the paper to state that it is a position paper). These papers will be included in the preliminary proceedings distributed at the meeting. Revised and extended versions of those papers may be submitted in order to go through another round of the review process and being considered for the 2010 COIN Volume that will be published in the Springer LNCS series.

## VENUE

The workshop will be part of the MALLOW2010 (Autonomous Agents and Multi-Agent Systems) workshop programme, and will take place at Domaine Valpré in Lyon, France. Full details are available at <http://mallow2010.emse.fr/index.html>.

## PROCEEDINGS

Preliminary proceedings will be available at the workshop. As with previous COIN workshops, revised and extended versions of the papers of both the two 2010 workshops (this one an [COIN@AAMAS2010](#)) will be published in a single Springer LNCS volume. Those revised versions must take into account the discussion held during the workshop, hence, only those papers that are presented during the workshop will be considered for inclusion in the post-proceedings volume.

## IMPORTANT DATES

- **June 16, 2010:** Submission of Papers (**Extended**)
- July 08, 2010: Notification of Acceptance/ Rejection
- July 30, 2010: Submission of Camera-Ready Copies
- 30 Aug – 02 Sept, 2010: Workshop

## INSTRUCTIONS FOR AUTHORS

Given that the post-proceedings will be published in Springer LNC the papers should be formatted following Springer-Verlag's guidelines, available [here](#). The length of each paper including figures and references should not exceed 16 pages. All papers must be written in English and submitted in PDF format. Submission of a paper should be regarded as an undertaking that, should the paper be accepted, at least one of the authors will attend the workshop to present the work. For submission of papers, please use: <http://www.easychair.org/conferences/?conf=coinMALLOW2010>

## WORKSHOP OFFICIALS

### Workshop Chairs:

Nicoletta Fornara (University of Lugano, Switzerland)  
George Vouros (University of the Aegean, Greece)

### Programme Committee:

Alexander Artikis (National Centre for Scientific Research Demokritos, Greece)

Guido Boella (University of Torino, Italy)  
Olivier Boissier (ENS Mines Saint-Etienne, France)  
Rafael Bordini (Federal University of Rio Grande do Sul, Brazil)  
Amit Chopra (University of Trento, Italy)  
Antonio Carlos da Rocha Costa (Univ. Federal do Rio Grande FURG, Brazil)  
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Christian Lemaitre (Universidad Autonoma Metropolitana, Mexico)  
Henrique Lopes Cardoso (Universidade do Porto, Portugal)  
Eric Matson (Purdue, USA)  
John-Jules Meyer (Utrecht University, The Netherlands)  
Pablo Noriega (IIIA-CSI, Spain)  
Eugenio Oliveira (Universidade do Porto, Portugal)  
Andrea Omicini (Universita di Bologna)  
Sascha Ossowski (URJC, Spain)  
Julian Padget (University of Bath, UK)  
Jeremy Pitt (Imperial College, London)  
Juan Antonio Rodriguez Aguilar (IIIA-CSIC, Spain)  
Jaime Sichman (University of Sao Paulo, Brazil)  
Munindar P. Singh, North Carolina State University, USA  
Viviane Torres da Silva (Universidade Federal Fluminense, Brazil)  
Kostas Stathis (Royal Holloway, University of London, UK)  
Paolo Torroni (University of Bologna, Italy)  
Leon van der Torre (University of Luxembourg, Luxembourg)  
Birna van Riemsdijk (Delf University of Technology, The Netherlands)  
Wamberto Vasconcelos (University of Aberdeen, UK)  
Javier Vazquez-Salceda (University Politecnica de Catalunya, Spain)  
Mario Verdicchio (University of Bergamo)  
Danny Weyns (Katholieke Universiteit Leuven)  
Pinar Yolum, Bogazici University, Turkey

**Coin Steering Committee:**

Guido Boella (University of Torino, Italy)  
Olivier Boissier (ENS Mines Saint-Etienne, France)  
Nicoletta Fornara (University of Lugano, Switzerland)  
Christian Lemaitre (Universidad Autonoma Metropolitana, Mexico)  
Eric Matson (Purdue University, USA)  
Pablo Noriega (Artificial Intelligence Research Institute, Spain)  
Sascha Ossowski (Universidad Rey Juan Carlos, Spain)  
Julian Padget (University of Bath, UK)  
Jeremy Pitt (Imperial College London, UK)  
Jaime Sichman (University of Sao Paulo, Brazil)  
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