

Fourth German Conference on Multi-Agent System Technologies (MATES 06) September 19 - 21, 2006 in Erfurt, Germany

<http://www.dfki.de/MATES>

Co-located with Net.ObjectDays 2006; September 18 - 21, 2006

IMPORTANT DATES

Submission of papers:	April	2, 2006
Notification of authors:	Mai	22, 2006
Camera-ready papers:	June	18, 2006
Conference:	September 19-21, 2006	

AIMS & SCOPE

The German conference on Multi-Agent system TEchnologieS (MATES) provides an interdisciplinary forum for researchers, users and developers to present and discuss latest advances in research work as well as prototyped or fielded systems of intelligent agents and multi-agent systems. The conference aims to promote theory and application and covers the whole range of agent- and multi-agent technologies.

For the fourth time the German special interest group on Distributed Artificial Intelligence in cooperation with the steering committee of MATES organizes this international conference in order to promote theory and application of agents and multi-agent systems. Building on the three successful predecessors in 2003, 2004, and 2005, MATES 2006 takes place from 19th to 21st of September 2006 in Erfurt in the context of the Net.ObjectDays 2006. The Net.ObjectDays (NODE 2006, <http://http://www.netobjectdays.org/de/index.html>) provide an umbrella for a set of conferences—such as GSEM (International Conference on Grid Service Engineering and Management) and SOAS (International Conference on Self-Organization and Adaptation of Multi-agent and Grid Systems)—that cover aspects of almost any area of agent technologies, autonomic computing, aspect-driven and model-driven architectures, and component-based programming as well as the intersections of these research areas.

Topics of interest of MATES 2006 are all aspects of agent-oriented computing and agent technologies. However, while service-oriented architectures in general become more and more popular, agent technologies need to be re-considered and discussed in the context of up-coming trends in the design of such architectures. Web service technologies and the semantic Web are the most obvious examples of this development. But also up-coming trends in general software design like the model-driven architecture and workflow patterns for service composition need to be discussed. In this context agents operate in a heterogeneous and possibly geographically distributed environment. A key challenge of developing agent-based systems in this context is to search for services that meet the agent's objectives and compose them in a flexible manner. In the composition of these services complex patterns of interaction might be involved and an intuitive and easy to read and understand representation of these patterns is highly desirable.

We solicit papers that report on recent advances in the domain of intelligent agents and multi-agent systems in general but specifically encourage elaborated vision and challenge papers that discuss mid-term and long-term directions for these domains in the context of the above mentioned topics.

TOPICS

Areas of interest include, but are not limited to:

- Agent and multi-agent architectures
- Multi-agent platforms and tools
- Agent-oriented software engineering
- Model-driven design of multi-agent systems
- Agent technologies in the context of service-oriented computing and architectures
- Agent-based service discovery, matchmaking, brokering, and composition
- Complex systems and their management
- Practical aspects of programming agent systems: Robustness, scalability and performance measurement
- Agent to non-agent interoperability
- Advanced theories of collaboration: Modelling and formation of teams, coalitions, groups, and organizations
- Agent communication languages
- Coordination, negotiation, argumentation, and conflict resolution
- Hybrid human and agent societies
- Interface agents, believable agents, and user modelling
- Commitment, delegation, responsibility, and obligations in artificial and hybrid societies
- Semantic of the dynamics of organizational models
- Roles and structures, adaptive learning and cognition in organizational models
- Multi-agent planning and scheduling
- Adaptive agents and multi-agent learning
- Robustness, fault tolerance, scalability and performance measurement
- Artificial social systems: Conventions, norms, institutions; trust and reputation
- Multi-agent (social) simulation and (cognitive) modelling with agents
- Standards for agents and multi-agent systems
- Agents and peer-to-peer computing
- Agents and autonomic computing
- Agents and pervasive computing
- Mobile agents
- Autonomous robots and robot teams
- Agents for e-business and e-government
- Deployed agent-based business applications
- Application of agent-technologies in industrial practice
- Agents in novel applications, e.g. bioinformatics and the semantic Web

AWARDS

MATES issues a "MATES 2006 Best Paper Award".

DOCTORAL MENTORING PROGRAM

MATES 2006 intends to include a doctoral mentoring program, aimed at PhD students in advanced stages of their research. This program will provide an opportunity for students to interact closely with established researchers in their fields, to receive feedback on their work and to get advice on managing their careers.

PROCEEDINGS

The proceedings of MATES 2006 are planned to be published in the Springer series "Lecture Notes in Artificial Intelligence" (LNAI).

SUBMISSION DETAILS

For preparation of papers to be submitted please follow the instructions for authors available at the Springer LNCS Web page: <<http://www.springer.de/comp/lncs/authors.html>>. The length of each paper including figures and references should not exceed 12 pages. All papers must be written in English and submitted either in postscript or PDF format.

Papers that have been accepted or are under review by other conferences or journals are not eligible for submission. However, we encourage interdisciplinary contributions submitted or presented in part to a forum outside of agent technology. Submissions not conforming to the above requirements may be rejected without review.

You may submit your paper via the conference management tool on the MATES website.

ORGANISATION

General Co-Chairs:

Elisabeth Andre (University Augsburg, D)

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