

MULTI-AGENT SYSTEMS

SELECTED READING

Coalition Agents Experiment: Multi-Agent Co-operation in an International Coalition Setting

<http://www.aiai.ed.ac.uk/~arpi/COALITION/KSCO/ksco-2002/pdf-parts/B-ksco-2002-paper-08-allsopp.pdf>

Authors: David N. Allsopp, Patrick Beautement, Jeffrey M. Bradshaw, Edmund H. Durfee, Michael Kirton, Craig A. Knoblock, Niranjan Suri, Austin Tate, Craig W. Thompson

Multi Agent System: A Nonlinear Framework for Machine Learning and Emerging Strategic Behavior

<http://www.cs.northwestern.edu/~wolff/aicg99/jbrzezinski.html>

Author: Jacek Brzezinski, DePaul University, Institute for Applied Artificial Intelligence, School of Computer Science, Telecommunications and Information Systems

The Potential For Intelligent Software Agents in Defence Simulation

<http://www.eleceng.adelaide.edu.au/ieee/idc99/abstracts/lucas1.html>

Authors: Andrew Lucas and Simon Goss

D'Agent tutorials on mobile agents

<http://agent.cs.dartmouth.edu/tutorials/index.html>

- Bob Gray - Introduction to Mobile Agents: Performance, Security and Programming Examples
- Bob Gray - Agent Mobility: Performance, Security and a Case Study
- David Kotz - Agents, Mobile Agents, and D'Agents
- George Cybenko and Bob Gray - Mobile Agents in Distributed Computing

D'Agent papers on mobile agents

<http://agent.cs.dartmouth.edu/papers/index.html>

This page contains papers on mobile agents, mobile agents security, hypothesis tracking, mobile agents in information retrieval, network sensing, learning and planning, network routing and quality-of-service, visual agent construction, functional validation.

Selected titles:

- Mobile Agents: The Next Generation in Distributed Computing.
- Mobile agents: Motivations and State of the Art.
- Mobile-Agent versus Client/Server Performance: Scalability in an Information-Retrieval Task.
- D'Agents: Applications and Performance of a Mobile-Agent System.
- Write Once, Move Anywhere: Toward Dynamic Interoperability of Mobile Agent Systems.
- Mobile Agents for Mobile Computing.
- Future Directions for Mobile-Agent Research.
- Mobile Code: The Future of the Internet.
- Mobile Agents and the Future of the Internet.
- Performance Analysis of Mobile Agents for Filtering Data Streams on Wireless Networks.
- Scheduling Multi-task Multi-agent Systems.
- A Comparison of Mobile Agent Migration Mechanisms.
- D'Agents: Security in a multiple-language, mobile-agent system.
- A Game-Theoretic Formulation of Multi-Agent Resource Allocation.
- Mobile-Agent Planning in a Market-Oriented Environment.
- Trading Risk in Mobile-Agent Computational Markets.
- Multiple Hypothesis Text-based Tracking of Land Vehicles.
- The Foundations of Information Push and Pull.
- Mobile Agents for Distributed Information Retrieval.
- Network Awareness and Mobile Agent Systems.
- Q-Learning: A tutorial and extensions.
- Networking Reconfigurable Smart Sensors.
- Matching Conflicts: Functional Validation of Agents.
- Information theoretic principles of agents.

Publications of Katia Sycara

Home page: http://www.ri.cmu.edu/people/sycara_katia.html

http://www.ri.cmu.edu/people/person_304_pubs.html

A very good site with more than 160 publications on multi-agent systems theory and applications, majority available for download.

Selected titles:

- Communicating Agents in Open Multi-Agent Systems
- Facilitating Message Exchange through Middle Agents
- Algorithms for combinatorial coalition formation and payoff division in an electronic marketplace
- Conversational Case-Based Planning for Agent Team Coordination
- Configuration Management for Multi-Agent Systems
- Multi-agent reinforcement learning for planning and scheduling multiple goals
- Multiple negotiations among agents for a distributed meeting scheduler
- Agent Interoperation Across Multiagent System Boundaries
- Agent-Based Support for Human/Agent Teams
- Agent-Based Team Aiding in a Time Critical Task
- Interleaving Planning and Execution in a Multiagent Team Planning Environment
- Agent-based aiding for individual and team planning tasks
- Evolution of Goal-Directed Behavior Using Limited Information in a Complex Environment
- Adding Security and Trust to Multi-Agent Systems
- Agent aided aircraft maintenance
- Interoperability among Heterogeneous Software Agents on the Internet
- A Roadmap of Agent Research and Development
- Agent Cloning: An Approach to Agent Mobility and Resource Allocation
- Calibrating trust to integrate intelligent agents into human teams
- Argumentation in Negotiation: A Formal Model and Implementation
- Personal Security Agent: KQML-Based PKI
- Intelligent Adaptive Information Agents
- Distributed Intelligent Agents
- Executing Decision-theoretic Plans in Multi-agent Environments

- Unified Information and Control Flow in Hierarchical Task Networks
- How Does an Agent Learn to Negotiate
- Multi-Agent Integration of Information Gathering and Decision Support
- Designing a Multi-Agent Portfolio Management System
- Cooperative Intelligent Software Agents
- Modeling teams of specialists
- Distributed Problem Solving through Coordination in a Society of Agents
- Informed Decision Making in Multi-Specialist Cooperation
- Machine Learning for Intelligent Support of Conflict Resolution
- Negotiation Planning: An AI Approach
- Persuasive Argumentation in Negotiation

Clint's publications

<http://members.optushome.com.au/clintspapers/aamas-01.htm>

A good site with publications on military modeling and simulation using intelligent agents

Selected titles:

- Developing Agents for Military Simulation: From Knowledge Acquisition to Deployment
- Interchanging Agents and Humans in Military Simulation
- Modelling Command, Control, and Communication in Intelligent Agents
- Interactions Between Real and Virtual Entities in Synthetic Environments
- Intelligent Agents in the Analysis of Air Operations
- Scalability Issues in Military Multi-Agent Simulation
- Enabling perception for plan recognition in multi-agent air mission simulations
- A Military Air Mission Planning Tool: An RMA Initiative
- Plan Recognition in Military Simulation: Incorporating Machine Learning with Intelligent Agents Recognition of Intention
- Intelligent Computer-generated Forces
- Using Intelligent Agents in Military Simulation or "Using Agents Intelligently"
- Flying Together: Modelling Air Mission Teams
- Thinking Quickly: Agents for Modeling Air Warfare
- The Battle Model

- Towards Credible Computer Generated Forces
- Air Defence Operational Analysis Using the SWARMM Model
- Modelling Decision Making in an Air-Combat Environment
- Air Combat Tactics in the Smart Whole AiR Mission Model
- The Challenge of Whole Air Mission Modelling
- Modelling Teams and Team Tactics in Whole Air Mission Modelling.
- FFG-7 Class Frigate Airwake Viewer

Collaborative Interface Agents

<http://agents.www.media.mit.edu/groups/agents/publications/aaai-ymp/aaai.html>

Authors: Yezdi Lashkari, Max Metral, Pattie Maes MIT Media Laboratory, Cambridge, MA

Strategic Negotiation in Multiagent Environments

<http://mitpress.mit.edu/0262112647>

Author: Sarit Kraus

The MIT Press