

AAMAS 2014

CONFERENCE PROGRAM



Paris, France

May 5-9, 2014



13th international conference on
autonomous agents and multiagent systems

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Committees

Organising Committees

General Chairs

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Michael Huhns

Program Chairs

Alessio Lomuscio

Paul Scerri

Local Arrangements Chair

Amal El Fallah Seghrouchni

Local Arrangements Committee

Aurélie Beynier

Vincent Corruble

Jean-Daniel Kant

Innovative Application Track Chairs

Tom Holvoet

Rajiv Maheswaran

Robotics Track Chairs

Noa Agmon

Luiz Chaimowicz

Virtual Agents Track Chairs

Elisabeth Andre

Sarit Kraus

Blue Sky Ideas Track Chair

Munindar Singh

Finance Chair

Pavlos Moraitis

Sponsorship Chairs

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Bradley Clement

Asia/Oceania: Christian Guttman

Europe: Michal Pechoucek

Publicity Chair

Matthew Taylor

Publications Chair

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Workshops Chairs

Rafael Bordini

José Vidal

Exhibition Chair

Benito Mendoza

Demonstration Chairs

Bo An

Juan A. Rodriguez-Aguillar

Student Scholarship Chairs

Mathijs M. de Weerd

Daniel Villatoro

Kagan Tumer

Doctoral Mentoring and Consortium Chairs

Wamberto Vasconcelos

Karl Tuyls

Edith Elkind

Senior Program Committee

Main Track

Adrian Agogino

Ruth Aylett

Tucker Balch

Rafael Bordini

Michael Bowling

Cristiano Castelfranchi

Vincent Conitzer

Mehdi Dastani

Keith Decker

M. Bernardine Dias

Juergen Dix

Alexis Drogoul
Ed Durfee
Edith Elkind
Ulle Endriss
Rino Falcone
Alessandro Farinelli
Kobi Gal
Maria Gini
Paolo Giorgini
Valentin Goranko
Zahia Guessoum
Koen Hindriks
Katsutoshi Hirayama
Wojciech Jamroga
Catholijn Jonker
Ece Kamar
Gal Kaminka
Stefan Kopp
Sarit Kraus
Pedro Lima
Alessio Lomuscio
Michael Luck
Roger Mailler
Stacy Marsella
Jean-Claude Martin
John-Jules Meyer
Joerg Mueller
Daniele Nardi
Itsuki Noda
Lin Padgham
Ana Paiva
Simon Parsons
Michal Pechoucek
Catherine Pelachaud
David Pynadath
Iyad Rahwan
Sarvapali Ramchurn
Juan Antonio Rodriguez-Aguilar
Alex Rogers
Avi Rosenfeld

Jeffrey Rosenschein
Erol Sahin
Sebastian Sardina
Nathan Schurr
Onn Shehory
Dave Shield
Carles Sierra
Elizabeth Sklar
Matthijs Spaan
Gita Sukthankar
Katia Sycara
Milind Tambe
John Thangarajah
Michael Thielscher
Paolo Torroni
David Traum
Karl Tuyls
Wiebe van der Hoek
Hans van Ditmarsch
M. Birna van Riemsdijk
Pradeep Varakantham
Manuela Veloso
Hannes Vilhjalmsson
Marilyn Walker
Gerhard Weiss
Michael Wellman
Michael Winikoff
Michael Wooldridge
Franco Zambonelli
Shlomo Zilberstein

Virtual Agents Track

Ruth Aylett
Kobi Gal
Catholijn Jonker
Stefan Kopp
Sarit Kraus
Stacy Marsella
Jean-Claude Martin
Ana Paiva
Catherine Pelachaud

Avi Rosenfeld
Katia Sycara
Milind Tambe
David Traum
Hannes Vilhjalmsson
Marilyn Walker

Innovative Applications Track

Ece Kamar
Sarit Kraus
Joerg Mueller
Michal Pechoucek
David Pynadath
Sarvapali Ramchurn
Nathan Schurr
Onn Shehory
Dave Shield
Gerhard Weiss

Robotics Track

M. Bernardine Dias
Maria Gini
Gal Kaminka
Pedro Lima
Daniele Nardi
Erol Sahin
Gita Sukthankar
Manuela Veloso

Challenges and Visions Track

Cristiano Castelfranchi
Juergen Dix
Rino Falcone
Jonathan Gratch
Juan Antonio Rodriguez-Aguilar
Jeffrey Rosenschein
Carles Sierra

List of Workshops

ACAN – Agent-based Complex Automated Negotiations

ACySe – Agents and CyberSecurity

ADMI – Agent & Data Mining Interaction

ALA – Adaptative and Learning Agents

AMEC/TADA – Agent-Mediated Electronic Commerce and Trading Agent Design and Analysis

ARMS – Autonomous Robots and Multirobot Systems

ArgMAS – Argumentation in Multi-Agent Systems

ATT – Agents in Traffic and Transportation

AVSA – Agents, Virtual Societies and Analytics

CARE – Collaborative Agents – Research & Development, CARE for Intelligent Mobile Services

CARs – Culture Aware Robotics

COIN – Coordination, Organisations, Institutions and Norms

CoopMAS – Cooperative Games in Multiagent Systems

COOS – Collaborative Online Organizations Workshop

E4MAS – Agent Environments for Multi-Agent Systems? 10 Years Later

EMAS – Engineering Multi-Agent Systems

EXPLORE – Exploring Beyond the Worst Case in Computational Social Choice

HAIDM – Human-Agent Interaction Design and Models

HCAGT – Towards Better and more Affordable Healthcare: Incentives, Game Theory, and Artificial Intelligence

LAMAS – Logical Aspects of Multi-Agent Systems

MABS – Multi-Agent-Based Simulation

MASH – Multi-Agent Systems for Healthcare

MFSC – Multiagent Foundations of Social Computing

MSDM – Multiagent Sequential Decision Making Under Uncertainty

OptMAS-DCR – Optimisation in Multi-Agent Systems and Distributed Constraint Reasoning

SCW – Spatial Computing Workshop

TRUST – Trust in Agent Societies

WEIN – Workshop on Emergent Intelligence on Networked Agents

Program At-a-Glance

Monday May 5, 2014	
08.30	<i>Opening</i>
09.00 - 10.30	<p>Workshops: ACySe, ADMI, ALA, AMEC/TADA, ArgMAS, ATT, AVSA, CARE, CoopMAS, EMAS, HCA GT, LAMAS, MABS, OptMAS-DCR, WEIN</p> <p>Trading Agent Competition</p> <p>Doctoral Symposium</p>
10.30 - 11.00	<i>Coffee Break</i>
11.00 - 12.30	<p>Workshops: ACySe, ADMI, ALA, AMEC/TADA, ArgMAS, ATT, AVSA, CARE, CoopMAS, EMAS, HCA GT, LAMAS, MABS, OptMAS-DCR, WEIN</p> <p>Trading Agent Competition</p> <p>Doctoral Symposium</p>
12.30 - 14.00	<i>Lunch</i>
14.00 - 15.30	<p>Workshops: ACySe, ADMI, ALA, AMEC/TADA, ArgMAS, ATT, AVSA, CARE, CoopMAS, EMAS, LAMAS, MABS, OptMAS-DCR, WEIN</p> <p>Trading Agent Competition</p> <p>Doctoral Symposium</p>
15.30 - 16.00	<i>Coffee Break</i>
16.00 - 18.00	<p>Workshops: ACySe, ADMI, ALA, AMEC/TADA, ArgMAS, ATT, AVSA, CARE, CoopMAS, EMAS, LAMAS, MABS, OptMAS-DCR, WEIN</p> <p>Trading Agent Competition</p> <p>Doctoral Symposium</p>

Please see page 12 for the detailed program with the associated rooms.

Program At-a-Glance

Tuesday May 6, 2014

09.00 - 10.30	Workshops: ACAN, ALA, ARMS, ATT, CARs, COIN, E4MAS, EMAS, EXPLORE, HAIDM, MABS, MSDM, OptMAS-DCR, SCW, TRUST Trading Agent Competition
10.30 - 11.00	<i>Coffee Break</i>
11.00 - 12.30	Workshops: ACAN, ALA, ARMS, ATT, CARs, COIN, E4MAS, EMAS, EXPLORE, HAIDM, MABS, MSDM, OptMAS-DCR, SCW, TRUST Trading Agent Competition
12.30 - 14.00	<i>Lunch</i>
14.00 - 15.30	Workshops: ACAN, ALA, ARMS, COIN, COOS, E4MAS, EMAS, EXPLORE, HAIDM, MASH, MFSC, MSDM, SCW, TRUST Trading Agent Competition
15.30 - 16.00	<i>Coffee Break</i>
16.00 - 18.00	Workshops: ACAN, ALA, ARMS, COIN, COOS, E4MAS, EMAS, EXPLORE, HAIDM, MASH, MFSC, MSDM, SCW, TRUST Trading Agent Competition
19.00 - 22.30	<i>Welcome reception</i>

Please see page 16 for the detailed program with the associated rooms.

Program At-a-Glance

Wednesday May 7, 2014

09.00 - 10.20 Game Theory I
Voting I
Humans and Agents I
Norms
Verification and Validation I
Learning I

10.20 - 10.50 *Coffee Break*

10.50 - 12.10 Algorithmic Game Theory I
Information I
Social Networks I
Agent Oriented Software Engineering I
Logic I
Task and goods allocation I

12.10 - 14.40 *Lunch, Posters and Demos*

14.40 - 16.00 Teams
Task and goods allocation II
Crowdsourcing
Adversarial Search
Argumentation and Negotiation
Information II

16.00 - 16.30 *Coffee Break*

16.30 - 17.30 *Keynote: Iain D. Couzin*



Please see page 18 for the detailed program with the associated rooms.

Program At-a-Glance

Thursday May 8, 2014

09.00 - 10.20	Game Theory II Voting II Humans and Agents II Social Networks II Verification and Validation II Planning I
10.20 - 10.50	<i>Coffee Break</i>
10.50 - 12.10	Emotions Energy Game Theory III Dissertation Automated Negotiating Agents Competition (10.50 - 12.30)
12.10 - 14.40	<i>Lunch, Posters and Demos</i>
14.40 - 16.00	Logic II Task and goods allocation III Agent Oriented Software Engineering II Humans and Agents III Mechanism Design I
16.00 - 16.30	<i>Coffee Break</i>
16.30 - 17.30	<i>Keynote: Michael Luck</i>
20.00 - 23.00	<i>Gala dinner</i>



Please see page 34 for the detailed program with the associated rooms.

Program At-a-Glance

Friday May 9, 2014

09.00 - 10.20 Auctions
Humans and Agents IV
Path Planning
Learning II
Blue Sky Ideas

10.20 - 10.40 *Coffee Break*

10.40 - 11.40 *ACM Talk: Michael Wellman*



11.40 - 13.00 Social Choice
Algorithmic Game Theory II
Learning III
Planning II
Mechanism Design II

13.00 - 14.30 *Lunch and Community Meeting*

Please see page 49 for the detailed program with the associated rooms.

Detailed Program

Monday May 5, 2014

Opening

08.30 – 09.00

Monday, 5 May / Workshops — Full day

09.00 – 10.30 / 11.00 – 12.30 / 14.00 – 15.30 / 16.00 – 18.00

ACySe — Agents and CyberSecurity

Room: Les invalides B

ADMI — Agent & Data Mining Interaction

Room: St Germain des près B

ALA — Adaptative and Learning Agents

Room: Miles Davis A

AMEC/TADA — Agent-Mediated Electronic Commerce and Trading Agent Design and Analysis

Room: Louis Armstrong B

ArgMAS — Argumentation in Multi-Agent Systems

Room: Ella Fitzgerald A

ATT — Agents in Traffic and Transportation

Room: Ella Fitzgerald B

AVSA — Agents, Virtual Societies and Analytics

Room: Les invalides A

CARE — Collaborative Agents – Research & Development, CARE for Intelligent Mobile Services

Room: St Germain des près A

CoopMAS — Cooperative Games in Multiagent Systems

Room: Pont des arts C

EMAS — Engineering Multi-Agent Systems

Room: Miles Davis C

HCAGT — Towards Better and more Affordable Healthcare: Incentives, Game Theory, and Artificial Intelligence

Room: Miles Davis A

LAMAS — Logical Aspects of Multi-Agent Systems

Room: Louis Armstrong A

MABS — Multi-Agent-Based Simulation

Room: Louis Armstrong D

OptMAS-DCR — Optimisation in Multi-Agent Systems and Distributed Constraint Reasoning

Room: St Michel

WEIN — Workshop on Emergent Intelligence on Networked Agents

Room: Louis Armstrong C

Monday, 5 May / Doctoral Symposium — Full day

09.00 – 10.30 / 11.00 – 12.30 / 14.00 – 15.30 / 16.30 – 18.00

Rooms: Pont des arts A and B

09.00 - 09.15 Welcome

09.15 - 10.15 Invited Talk: Milind Tambe

10.15 - 10.30 Setting up Posters

10.30 - 12.30 Presentations

1. *Harel Yedidsion*, **Distributed Constraint Optimization for Mobile Sensor Teams**
2. *Filippo Bistaffa*, **Parallel Algorithms for Hard Combinatorial Optimisation Problems**
3. *Denise Case*, **Engineering Multigroup Agents for Complex Cooperative Systems**
4. *Omer Lev*, **Modeling Human Interactions**
5. *John Doucette*, **Imputation, Social Choice, and Partial Preferences**
6. *Adam Eck*, **Reflective, Deliberative Information Gathering**
7. *Jorge Gomes*, **Evolution of Heterogeneous Multirobot Systems**
8. *Nader Hanna*, **Human-Agent Teamwork in Collaborative Virtual Environments**

9. *Mohammad Hasan*, **Communication Convention Formation in Large MASs**
10. *Athirai Irissappane*, **Robust Trust Management**
11. *Micha Kahlen*, **Agent-based Methods for Eliciting Customer Preferences**
12. *Allen Lavoie*, **Social motivation and point of view**
13. *Logan Yliniemi*, **Considerations for Multiagent Multi-Objective Systems**

12.30 - 14.00 Lunch

14.00 - 15.30 Presentations

1. *John Dickerson*, **Robust Dynamic Optimization with Application to Kidney Exchange**
2. *Pradeep Murukannaiah*, **Engineering Context-Aware Agents**
3. *Davide Nunes*, **Adaptive Ontologies Through Social Evolution**
4. *James Parker*, **Coordination in Large Scale MASs for Complex Environments**
5. *Gleb Polevoy*, **Understanding and Improving Human Interaction**
6. *Diederik Roijers*, **Convex Coverage Set Methods**
7. *Jason Sleight*, **Agent Aware Organizational Design**
8. *Lampros Stavrogiannis*, **Competing Demand-Side Intermediary Auctioneers**
9. *Gabriele Valentini*, **Self-Organized Collective Decision-Making in Swarms**
10. *Bryce Wiedenbeck*, **Approximate Game Theoretic Analysis**
11. *Junchao Xu*, **Body Language of Humanoid Robots for Mood Expression**
12. *Rahmatollah Beheshti*, **Normative Agents for Real-world Scenarios**

13. *Hooyeon Lee*, **Algorithmic and Game-theoretic Approaches to Group Scheduling**

15.30 - 16.30 Coffee Break / Posters

16.30 - 18.00 Panel Session

Monday, 5 May (and Tuesday, 6 May)/ Trading Agent Competition

Room: Foyer

AAMAS 2014 will host the Fifteenth Annual Trading Agent Competition (TAC), a two-days event organized by the Association for Trading Agent Research.

The first day of TAC 2014 Finals (May 5) is traditionally collocated with the AMEC/TADA workshop, which is part of the AAMAS 2014 workshops. The second day of TAC 2014 Finals (May 6) will be open to all conference participants with the opportunity to watch and comment live screening of Power TAC and Ad Exchange games. The TAC 2014 Finals will be closed with the awards ceremony at 18.00.

General information about TAC and information and links about all the TAC games can be found at the Association for Trading Agents Research website: <http://tradingagents.org>.

Tuesday May 6, 2014

Tuesday, 6 May — Full day

09.00 – 10.30 / 11.00 – 12.30 / 14.00 – 15.30 / 16.00 – 18.00

ACAN — Agent-based Complex Automated Negotiations

Room: Ella Fitzgerald A

ALA — Adaptative and Learning Agents

Room: Miles Davis B

ARMS — Autonomous Robots and Multirobot Systems

Room: Louis Armstrong A

ATT — Agents in Traffic and Transportation

Room: St Germain des prèS B

CARs — Culture Aware Robotics

Room: St Germain des prèS A

COIN — Coordination, Organisations, Institutions and Norms

Room: Les invalides B

COOS — Collaborative Online Organizations Workshop

Room: St Germain des prèS A

E4MAS — Agent Environments for Multi-Agent Systems - 10 Years Later

Room: Louis Armstrong D

EMAS — Engineering Multi-Agent Systems

Room: Miles Davis C

EXPLORE — Exploring Beyond the Worst Case in Computational Social Choice

Room: Miles Davis A

HAIDM — Human-Agent Interaction Design and Models

Room: Ella Fitzgerald B

MABS — Multi-Agent-Based Simulation

Room: Louis Armstrong C

MASH — Multi-Agent Systems for Healthcare

Room: Les invalides A

MFSC — Multiagent Foundations of Social Computing

Room: Louis Armstrong C

MSDM — Multiagent Sequential Decision Making Under Uncertainty

Rooms: Pont des arts A, B and C

OptMAS-DCR — Optimisation in Multi-Agent Systems and Distributed Constraint Reasoning

Room: Les invalides A

SCW — Spatial Computing Workshop

Room: St Michel

TRUST — Trust in Agent Societies

Room: Louis Armstrong B

Evening

19.00 - 22.30

Welcome reception

The welcome reception will take place at the Cordeliers Campus (Please see page 63 for details).

Wednesday May 7, 2014

Wednesday May 7 – Morning

09.00 – 10.20 Game Theory I – A1

Rooms: St. Germain des près A and B Chair: Wojciech Jamroga

Fractional Hedonic Games

Haris Aziz, Felix Brandt and Paul Harrenstein

Anytime Coalition Structure Generation on Synergy Graphs

Filippo Bistaffa, Alessandro Farinelli, Jesus Cerquides, Juan Antonio Rodriguez-Aguilar and Sarvapali Ramchurn

A Study of Sybil Manipulations on Hedonic Games

Thibaut Vallée, Grégory Bonnet, Bruno Zanuttini and François Bourdon

Cooperative Max Games and Agent Failures

Yoram Bachrach, Rahul Savani and Nisarg Shah

09.00 – 10.20 Voting I – B1

Room: Seine C Chair: Toby Walsh

The cost of principles: Analyzing power in Compatibility Weighted Voting Games

Abigail See, Yoram Bachrach and Pushmeet Kohli

Self-Organized Collective Decision Making: The Weighted Voter Model

Gabriele Valentini, Heiko Hamann and Marco Dorigo

Properties of Multiwinner Voting Rules

Edith Elkind, Piotr Faliszewski, Piotr Skowron and Arkadii Slinko

Bribery and Voter Control Under Voting-Rule Uncertainty

Gabor Erdelyi, Edith Hemaspaandra and Lane Hemaspaandra

09.00 – 10.20 Humans and Agents I – C1

Rooms: Les invalides A and B Chair: Sarit Kraus

User-Driven Narrative Variation in Large Story Domains using Monte Carlo Tree Search

Bilal Kartal, John Koenig and Stephen Guy

Story Similarity Measures for Drama Management with TTD-MDPs
Joshua Jones and Charles L. Isbell Jr.

It's Only a Computer: The Impact of Human-agent Interaction in Clinical Interviews

Jonathan Gratch, Gale Lucas and Aisha King

A Computational model of Social Attitudes for a Virtual Recruiter
Zoraida Callejas, Brian Ravenet, Magalie Ochs and Catherine Pelachaud

09.00 – 10.20 Norms – D1

Room: Parc Montsouris A Chair: Mehdi Dastani

Extracting Normative Relationships from Business Contracts

Xibin Gao and Munindar Singh

Minimality and Simplicity in the On-line Automated Synthesis of Normative Systems

Javier Morales, Maite Lopez-Sanchez, Juan Antonio Rodriguez-Aguilar, Wamberto Vasconcelos and Michael Wooldridge

Norm approximation for imperfect monitors

Natasha Alechina, Mehdi Dastani and Brian Logan

Playing with norms: Tractability of normative systems for homogeneous game structures

Sjur Dyrkolbotn and Piotr Kazmierczak

09.00 – 10.20 Verification and Validation I – E1

Room: Parc Montsouris B Chair: Sebastian Sardina

Model Checking Degrees of Belief in a System of Agents

Franco Raimondi, Giuseppe Primiero and Neha Rungta

Progression and Verification of Situation Calculus Agents with Bounded Beliefs

Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi and Stavros Vassos

Verifying Heterogeneous Multi-agent Programs

Thu Trang Doan, Yuan Yao, Natasha Alechina and Brian Logan

Verification of Data-Aware Commitment-Based Multiagent System

Marco Montali, Diego Calvanese and Giuseppe De Giacomo

09.00 – 10.20 Learning I – F1

Rooms: Miles Davis A and B Chair: Adrian Agogino

Potential-Based Difference Rewards for Multiagent Reinforcement Learning

Sam Demlin, Logan Yliniemi, Daniel Kudenko and Kagan Tumer

Inverse Reinforcement Learning under Occlusion of Multi-Robot Behavior with Interactions

Kenneth Bogert and Prashant Doshi

Persistent Patterns: Multi-Agent Learning beyond Equilibrium and Utility

Georgios Piliouras, Carlos Nieto-Granda, Henrik Christensen and Jeff Shamma

Napping for Functional Representation of Policy

Qing Da, Yang Yu and Zhi-Hua Zhou

Wednesday May 7 – Coffee Break

10.20 – 10.50

Wednesday May 7 – Morning

10.50 – 12.10 Algorithmic Game Theory I – A2

Rooms: St Germain des prèes A and B Chair: Vince Conitzer

Algorithms for the Myerson and Shapley Values in Graph-restricted Games

Oskar Skibski, Tomasz Michalak, Talal Rahwan and Michael Wooldridge

Sybil-proof Accounting Mechanisms with Transitive Trust

Sven Seuken and David Parkes

Price Manipulation in Prediction Markets: Analysis and Mitigation

Eric Huang and Yoav Shoham

Optimal False-name-proof Single-Item Redistribution Mechanism

Shunsuke Tsuruta, Masaaki Oka, Taiki Todo, Yujiro Kawasaki, Mingyu Guo, Yuko Sakurai and Makoto Yokoo

10.50 – 12.10 Information I – B2

Rooms: Les invalides A and B Chair: Ed Durfee

Signal Structure and Strategic Information Acquisition

Erik Brinkman, Michael Wellman and Scott Page

Constraining Information Sharing to Improve Cooperative Information Gathering

Igor Rochlin and David Sarne

Elicitability and Knowledge-Free Elicitation with Peer Prediction

Peter Zhang and Yiling Chen

Collective Action Through Common Knowledge Using A Facebook Model

Gizem Korkmaz, Chris Kuhlman, Achla Marathe, Madhav Marathe and Fernando Vega-Redondo

10.50 – 12.10 Social Networks I – C2

Room: Seine C Chair: Ulle Endriss

Forming coalitions and facilitating relationships for completing tasks in social networks

Liat Sless, Noam Hazon, Sarit Kraus and Michael Wooldridge

Cross-Layers Cascade in Multiplex Networks

Zhaofeng Li and Yichuan Jiang

Opinion Dynamics of Skeptical Agents

Alan Tsang and Kate Larson

How the Number of Strategies Impacts the Likelihood of Equilibria in Random Graphical Games

Anisse Ismaili, Evripidis Bampis, Nicolas Maudet and Patrice Perny

10.50 – 12.10 Agent Oriented Software Engineering I – D2

Room: Parc Montsouris A Chair: Onn Shehory

Coalition Structure Generation with the Graphics Processing Unit

Krzysztof Pawlowski, Karol Kurach, Kim Svensson, Sarvapali Ramchurn, Tomasz Michalak and Talal Rahwan

Novice Programmers' Errors & Faults in GOAL Programs: Empirical Observations and Lessons

Michael Winikoff

Xipho: Extending Tropos to Engineer Context-Aware Personal Agents

Pradeep Murukannaiah and Munindar Singh

Stop the Compartmentalization: Unified Robust Algorithms for Handling Uncertainties in Security Game

Thanh Nguyen, Albert Xin Jiang and Milind Tambe

10.50 – 12.10 Logic I – E2

Room: Parc Montsouris B Chair: Wiebe van der Hoek

Big Brother Logic: Logical modeling and reasoning about agents equipped with surveillance cameras

Olivier Gasquet, Valentin Goranko and François Schwarzentruber

Supervisory control theory in epistemic temporal logic

Guillaume Aucher

On the Relative Succinctness of Modal Logics with Union, Intersection and Quantification

Wiebe van der Hoek and Petar Iliev

A Logical Theory of Robot Localization

Vaishak Belle and Hector Levesque

10.50 – 12.10 Task and goods allocation I – F2

Rooms: Miles Davis A and B Chair: Rafael Bordini

Reputation-aware Task Allocation for Human Trustees

Han Yu, Chunyan Miao, Bo An, Shen Zhiqi and Cyril Leung

Efficiency and Fairness in Team Search with Self-Interested Agents

Igor Rochlin, Yonatan Aumann, David Sarne and Luba Golosman

Exploiting Max-Sum for the Decentralized Assembly of High-Valued Supply Chains

Toni Peña-Alba, Meritxell Vinyals, Jesus Cerquides and Juan Antonio Rodriguez-Aguilar

Tasks with cost growing over time and agent reallocation delays

James Parker and Maria Gini

12.10 – 14.40 Poster Session 1

Room: Foyer

Note: Besides the following posters, full papers from sessions **A1, B1, C1, D1, E1, F1, A2, B2, C2, D2, E2, F2, A3, B3, C3, D3, E3, F3, A4, B4, C4** will also be presented as posters in this poster session

ASP-DPOP: Solving Distributed Constraint Optimization Problems with Logic Programming

Tiep Le, Tran Cao Son, Enrico Pontelli and William Yeoh

GD-Gibbs: A GPU-Based Sampling Algorithm for Solving Distributed Constraint Optimization Problems

Ferdinando Fioretto, Federico Campeotto, Luca Da Rin Fioretto, William Yeoh and Enrico Pontelli

Decentralized Multi-Agent Reinforcement Learning in Average-Reward Dynamic DCOPs

Duc Thien Nguyen, William Yeoh, Hoong Chuin Lau, Shlomo Zilberstein and Chongjie Zhang

Probabilistic Recharging Model in Uncertain Environments

Zhao Song and Wen Sun

Optimizing Time and Convenience in Group Scheduling

Hooyeon Lee and Yoav Shoham

Stable Group Scheduling

Hooyeon Lee and Yoav Shoham

Adaptive Objective Selection for Correlated Objectives in Multi-Objective Reinforcement Learning

Tim Brys, Kristof Van Moffaert, Ann Nowé and Matthew E. Taylor

A Human Morning Routine Dataset

Michael Karg and Alexandra Kirsch

CLEANing the Reward: Counterfactual Actions to Remove Exploratory Action Noise in Multiagent Learning

Chris HolmesParker, Matthew E. Taylor, Adrian Agogino and Kagan Tumer

Towards a Game Theoretic Approach for Defending Against Crime Diffusion

Chao Zhang, Albert Xin Jiang, Martin Short, P. Jeffrey Brantingham and Milind Tambe

Complexity of Manipulation, Bribery, and Campaign Management in Bucklin and Fallback Voting

Piotr Faliszewski, Yannick Reisch, Jörg Rothe and Lena Schend

Low Cost Activity Recognition Using Depth Cameras and Context Dependent Spatial Regions

Michael Karg and Alexandra Kirsch

A Note on the Undercut Procedure

Haris Aziz

Security Games in the Field: An Initial Study on a Transit System

Francesco M. Delle Fave, Matthew Brown, Chao Zhang, Eric Shieh, Albert X. Jiang, Heather Rosoff, Milind Tambe and John P. Sullivan

Control of Condorcet Voting: Complexity and a Relation-Algebraic Approach, Rudolf Berghammer

Henning Schnoor

OBAA++: An Agent Architecture for Participating in Multiple Groups

Denise M. Case and Scott A. DeLoach

Towards Quantifying the Completeness of BDI Goals

John Thangarajah, James Harland, David N. Morley and Neil Yorke-Smith

Utilizing Agent-Based Modeling to Gain New Insights into the Ancient Minoan Civilization

Angelos Chliaoutakis and Georgios Chalkiadakis

Reasoning with Agent Preferences in Normative Multi-Agent Systems

Jie Jiang, John Thangarajah, Huib Aldewereld and Virginia Dignum

Bribery in Multiple-Adversary Path-Disruption Games Is Hard for the Second Level of the Polynomial Hierarchy

Adrian Marple, Anja Rey and Jörg Rothe

Evaluating Trust-Based Fusion Models for Participatory Sensing Applications

Erfan Davami and Gita Sukthankar

A Practical Robustness Measure of Incentive Mechanisms

Yuan Liu, Jie Zhang, Bo An and Sandip Sen

An Asynchronous Algorithm to Improve Scheduling Quality in the Multiagent Simple Temporal Problem

Vinicius De Antoni and Alvaro Moreira

Towards Safest Path Adversarial Coverage

Roi Yehoshua, Noa Agmon and Gal A. Kaminka

A Biclustering-Based Approach to Filter Dishonest Advisors in Multi-Criteria E-Marketplaces

Athirai A. Irissappane, Siwei Jiang and Jie Zhang

An Agent for Deception Detection in Discussion Based Environments

Amos Azaria, Ariella Richardson and Sarit Kraus

Automated Agents' Behavior in the Trust-Revenge Game Incomparision to Other Cultures

Amos Azaria, Ariella Richardson, Avshalom Elmalech and Avi Rosenfeld

Advice Provision for Energy Saving in Automobile Climate Control Systems

Amos Azaria, Sarit Kraus, Claudia V. Goldman and Omer Tsimhoni

Majority Bargaining for Resource Division

Shaheen Fatima and Michael Wooldridge

A Hybrid Approach to Model a Bayesian Network of Culture-Specific Behavior

Birgit Endrass, Julian Frommel and Elisabeth André

The Education of a Crook: Reinforcement Learning in Social-Cultural Settings

Taranjeet Singh Bhatia, Saad Ahmad Khan and Ladislau Bölöni

A Rollback Conflict Solver for Integrating Agent-Based Simulations

Dhirendra Singh and Lin Padgham

Modeling Curiosity for Virtual Learning Companions

Qiong Wu, Chunyan Miao and Bo An

Robust Anticipatory Stigmergic Collision Avoidance in Multi-Agent Systems

Friedrich Burkhard von der Osten, Michael Kirley and Tim Miller

A Cooperative Multi-Agent System to Accurately Estimate Residential Energy Demand

Márcia Baptista, Helmut Prendinger, Rui Prada and Yohei Yamaguchi

An Agent-Based Simulation of the Battle of Kokenhausen

Marcin Waniek

Expressing Social Attitudes in Virtual Agents for Social Coaching

Hazaël Jones, Mathieu Cholet, Magalie Ochs, Nicolas Sabouret and Catherine Pelachaud

Argumentation-Based Reinforcement Learning for RoboCup Soccer Takeaway

Yang Gao and Francesca Toni

Advanced Service Schemes for a Self-Interested Information Platform

Chen Hajaj, David Sarne and Lea Perets

Towards Effective User-Guided Robot Search

Shahar Kostı, Gal A. Kaminka and David Sarne

Subjective Partial Cooperation in Multi-Agent Local Search

Adi Eisen, Lahan Mor and Roie Zivan

Asymptotic Collusion-Proofness of Voting Rules: The Case of Large Number of Candidates

Palash Dey and Y. Narahari

Collective Decision Making in Distributed Systems Inspired by Honeybees Behaviour

Andreagiovanni Reina, Marco Dorigo and Vito Trianni

Modeling Agent Trustworthiness with Credibility for Message Recommendation in Social Networks

Noel Sardana and Robin Cohen

A Quantitative Analysis of Decision Process in Social Groups Using Human Trajectories

Truc Viet Le, Siyuan Liu, Hoong Chuin Lau and Ramayya Krishnan

Lp-Norm Based Algorithm for Multi-Objective Distributed Constraint Optimization

Tenda Okimoto, Nicolas Schwind, Maxime Clement and Katsumi Inoue

Peer Designed Agents: Just Reflect or Also Affect?

Avshalom Elmalech, David Sarne and Noa Agmon

Distributing Coalition Value Calculations to Self-Interested Agents

Luke Riley, Terry R. Payne, Trevor Bench-Capon and Katie Atkinson

Communicating with Unknown Teammates

Samuel Barrett, Noa Agmon, Noam Hazon, Sarit Kraus and Peter Stone

Assessing Learned Models of Fish Schooling Behavior

Brian Hrotenok and Tucker Balch

Formal Semantics of Speech Acts for Argumentative Dialogues

Alison R. Panisson, Felipe Meneguzzi, Moser Silva Fagundes, Renata Vieira and Rafael H. Bordini

Power and Welfare in Noncooperative Bargaining for Coalition Structure Formation

Shaheen Fatima, Tomasz Michalak and Michael Wooldridge

Distributed Multiagent Resource Allocation with Adaptive Preemption for Dynamic Tasks

Graham Pinhey, John Doucette and Robin Cohen

An Empirical Evaluation of Auction-Based Task Allocation in Multi-Robot Teams

Eric Schneider, Ofear Balas, A. Tuna Özgelen, Elizabeth I. Sklar and Simon Parsons

Behaviour Mining for Collision Avoidance in Multi-Robot Systems

Jeffery Raphael, Eric Schneider, Simon Parsons and Elizabeth I. Sklar

TacTex'13: A Champion Adaptive Power Trading Agent

Daniel Urieli and Peter Stone

Effective, Quantitative, Obscured Observation-Based Fault Detection in Multi-Agent Systems

Michael Q. Lindner and Noa Agmon

Semi-Autonomous Intersection Management

Tsz-Chiu Au, Shun Zhang and Peter Stone

Distributed, Complete, Multi-Robot Coverage of Initially Unknown Environments Using Repartitioning

Kurt Hungerford, Prithviraj Dasgupta and K. R. Guruprasad

An Architecture for Identifying Emergent Behavior in Multi-Agent Systems

Lachlan Birdsey and Claudia Szabo

Generalized Second Price Auctions with Value Externalities

Weidong Ma, Tao Wu, Tao Qin and Tie-Yan Liu

Emergence of Conventions in Conflict Situations in Complex Agent Network Environments

Toshiharu Suagwara

The RoboCup 2013 Drop-In Player Challenges: A Testbed for Ad Hoc Teamwork

Patrick MacAlpine, Katie Genter, Samuel Barrett and Peter Stone

SCRAM: Scalable Collision-Avoiding Role Assignment with Minimal-Makespan for Formational Positioning

Patrick MacAlpine, Eric Price and Peter Stone

An Efficient Algorithm for Taxi System Optimization

Jiarui Gan, Bo An and Chunyan Miao

On Coordinating Pervasive Persuasive Agents

Budhitama Subagdja and Ah-Hwee Tan

Sampling Based Multi-Agent Joint Learning for Association Rule Mining

Junyi Xu, Li Yao, Le Li and Yifan Chen

Towards a Generic Approach for Multi-Level Modeling of Renewable Resources Management Systems

Islem Hènane, Sameh Hadouaj, Khaled Ghédira and Ali Ferchichi

Dynamic Allocation of Security Resources for Protecting Public Events

Yue Yin, Bo An and Manish Jain

Declarative-Procedural Memory Interaction in Learning Agents

Wenwen Wang, Ah-Hwee Tan, Loo-Nin Teow and Yuan-Sin Tan

Checking EMTLK Properties of Timed Interpreted Systems via Bounded Model Checking

Bozena Wozna-Szczesniak

A Pheromone-Based Traffic Management Model for Vehicle Re-Routing and Traffic Light Control

Siwei Jiang, Jie Zhang and Yew-Soon Ong

12.10 – 14.40 Demos

Room: Sorbonne

I'm the mayor: a robot tutor in Enercities-2

Tiago Ribeiro, André Pereira, Amol Deshmukh, Ruth Aylett and Ana Paiva

MASPlanes: A multi-agent simulation environment to investigate decentralised coordination for teams of UAVs

Marc Pujol-Gonzalez, Jesus Cerquides and Pedro Mesequer

Distributed Enterprise Search using Software Agents

Erwin Gunadi, Michael Meder, Till Plumbaum, Christian Scheel, Frank Hopfgartner and Sahin Albayrak

AtomicOrchid: Human-Agent Collectives to the Rescue

Sarvapali Ramchurn, Wenchao Jiang, Joel Fischer, Feng Wu, Steven Reece, Chris Greenhalgh, Stephen Roberts, Tom Rodden and Nick Jennings

Applied Robotics: Precision Placement in RoboCup@Work

Sjriek Alers, Daniel Claes, Joscha Fossel, Daniel Hennes and Karl Tuyls

A Testbed to Evaluate the Robustness of Reputation Systems in E-Marketplaces

Athirai Aravazhi Irissappane and Zhang Jie

Building A Personalized Tourist Attraction Recommender System Using Crowdsourcing

Yoram Bachrach, Sofia Ceppi, Ian Kash, Peter Key, Ely Porat, Michael Armstrong, Vijay Sharma and Filip Radlinsky

NormLab: A Framework to Support Research on Norm Synthesis

Javier Morales, Iosu Mendizabal, David Sanchez-Pinsach, Maite Lopez-Sanchez, Michael Wooldridge and Wamberto Vasconcelos

Big Brother Logic: Reasoning about agents equipped with surveillance cameras in the plane (demonstration)

Tristan Charrier, Florent Ouchet and François Schwarzentruber

Measuring the Effect of Personality on Human-IVA Shared Understanding

Nader Hanna and Deborah Richards

Shape and Texture based Facial Action and Emotion Recognition

Li Zhang, Kamlesh Mistry and Alamgir Hossain

TENDENKO: Agent-Based Evacuation Drill and Emergency Planning System

Masaru Okaya, Toshinori Niwa and Tomoichi Takahashi

PAWS: Adaptive Game-theoretic Patrolling for Wildlife Protection (Demonstration)

Benjamin Ford, Debarun Kar, Francesco Delle Fave, Rong Yang and Milind Tambe

Semi-Automated construction of adversarial agents for trainable-automated forces

Robert Abbott, Kiran Lakkaraju and Christina Warrender

Multi-agent Traffic Simulation For Human-in-the-Loop Cooperative Drive Systems Testing

Jiří Vokřínek, Martin Schaefer and Daniele Pinotti

An Extensive Model Checking Framework for Multi-agent Systems

Songzheng Song, Yang Liu, Jie Zhang and Jun Sun

Agent-based Simulation Testbed for On-demand Transport Services (Demonstration)

Michal Čertický, Michal Jakob, Radek Píbil and Zbyněk Moler

Platys: An AOSE Framework for Supporting Context-Aware Personal Agents

Pradeep K. Murukannaiah, Ricard Fogues and Munindar P. Singh

An Interactive Virtual Audience Platform for Public Speaking Training

Mathieu Chollet, Giota Sratou, Ari Shapiro, Louis-Philippe Morency and Stefan Scherer

A Multi-Agent Game for Studying Human Decision-making

Han Yu, Xinjia Yu, Su Fang Lim, Jun Lin, Zhiqi Shen and Chunyan Miao

Wednesday May 7 – Afternoon

14.40 – 16.00 Teams – A3

Rooms: St Germain des près A and B Chair: Paul Scerri

Dealing with ambiguity in plan recognition under time constraints

Moser Silva Fagundes, Felipe Meneguzzi, Rafael Bordini and Renata Vieira

Modeling Uncertainty in Leading Ad Hoc Teams

Noa Agmon, Samuel Barrett and Peter Stone

Limited Bandwidth Recognition of Collective Behaviors in Bio-Inspired Swarms

Daniel Brown and Michael Goodrich

Sharing Information in Teams: Giving Up Privacy or Compromising on Team Performance?

Maaike Harbers, Reyhan Aydogan, Catholijn Jonker and Mark Neerincx

Clustering Objects with Robots That Do Not Compute

Melvin Gauci, Jianing Chen, Wei Li, Tony J. Dodd and Roderich Gross

14.40 – 16.00 Task and goods allocation II – B3

Rooms: Les invalides A and B Chair: Maria Gini

Constrained Scheduling of Exploration Tasks for Service Robots to Learn about their Environment

Max Korein, Brian Coltin and Manuela Veloso

Online Mechanism Design for Scheduling Non-Preemptive Jobs under Uncertain Supply and Demand

Philipp Ströhle, Enrico Gerding, Mathijs de Weerd, Sebastian Stein and Valentin Robu

Egalitarian Pairwise Kidney Exchange: Fast Algorithms via Linear Programming and Parametric Flow

Jian Li, Yicheng Liu, Lingxiao Huang and Pingzhong Tang

Adaptive Resource Allocation for Wildlife Protection against Illegal Poachers

Rong Yang, Milind Tambe, Benjamin Ford and Andrew Lemieux

14.40 – 16.00 Crowdsourcing – C3

Room: Seine B Chair: Gita Sukthankar

Improving the Efficiency of Crowdsourcing Contests

Haifeng Xu and Kate Larson

Productive Output in Hierarchical Crowdsourcing

Swaprava Nath and Balakrishnan Narayanaswamy

BudgetFix: Budget Limited Crowdsourcing for Interdependent Task Allocation with Quality Guarantees

Long Tran-Thanh, Trung Dong Huynh, Avi Rosenfeld, Sarvapali Ramchurn and Nick Jennings

14.40 – 16.00 Adversarial Search – D3

Rooms: Seine C Chair: Luiz Chaimowicz

Optimal Randomized Classification in Adversarial Settings

Yevgeniy Vorobeychik and Bo Li

Asymmetric Abstractions for Adversarial Settings

Nolan Bard, Michael Johanson and Michael Bowling

Cost Optimal Planning with LP-Based Multi-valued Landmark Heuristic

Lei Zhang, Chongjun Wang and Junyuan Xie

Opponent-Driven Planning and Execution for Pass, Attack, and Defense in a Multi-Robot Soccer Team

Joydeep Biswas, Juan Pablo Mendoza, Danny Zhu, Benjamin Choi, Steven Klee and Manuela Veloso

14.40 – 16.00 Argumentation and Negotiation – E3

Rooms: Parc Montsouris A and B Chair: Simon Parsons

Negotiating over ontological correspondences with asymmetric and incomplete knowledge

Terry Payne and Valentina Tamma

NegoChat: A Chat-Based Negotiation Agent

Avi Rosenfeld, Inon Zuckerman, Sarit Kraus, Erel Segal-Halevi and Osnat Drein

Multi-Agent Decision Making with Assumption-based Argumentation

Xiuyi Fan, Francesca Toni, Andrei Mocanu and Matthew Williams

Arguing about trust in information sources

Leila Amgoud and Robert Demolombe

14.40 – 16.00 Information II – F3

Room: Miles Davis A and B Chair: Michael Wellman

Explorative Max-sum for Teams of Mobile Sensing Agents

Harel Yedidsion, Roie Zivan and Alessandro Farinelli

A Normative Agent-based Model for Predicting Smoking Cessation Trends

Rahmatollah Beheshti and Gita Sukthankar

Competitive Information Provision in Sequential Search Markets

Meenal Chhabra, Sanmay Das and David Sarne

Decentralized Multi-Robot Active Sensing of Non-Stationary Environmental Phenomena

Ruofei Ouyang, Kian Hsiang Low, Jie Chen and Patrick Jaillet

Wednesday May 7 – Coffee Break

16.00 – 16.30

Wednesday May 7 – Keynote

16.30 – 17.30

Sensory networks and distributed cognition in animal groups

Iain D. Couzin

Room: Seine

Thursday May 8, 2014

Thursday May 8 – Morning

09.00 – 10.20 Game Theory II – A4

Rooms: St Germain des près A and B Chair: Valentin Goranko

Complexity of Stability-based Solution Concepts in Multi-issue and MC-net Cooperative Games

Yuqian Li and Vincent Conitzer

Cooperative Weakest Link Games

Yoram Bachrach, Omer Lev, Shachar Lovett, Jeffrey Rosenschein and Morteza Zadimoghaddam

Bootstrap Statistics for Empirical Games

Bryce Wiedenbeck, Ben-Alexander Cassell and Michael Wellman

The Shared Assignment Game

Gideon Blocq, Yoram Bachrach and Peter Key

09.00 – 10.20 Voting II – B4

Rooms: Les invalides A and B Chair: Michal Pechoucek

Possible and Necessary Winner Problem in Social Polls

Serge Gaspers, Victor Naroditskiy, Nina Narodytska and Toby Walsh

The Control Complexity of r-Approval: from the Single-Peaked Case to the General Case

Yongjie Yang and Jiong Guo

Election Controls with Small Single-Peaked Width

Yongjie Yang and Jiong Guo

09.00 – 10.20 Humans and Agents II – C4

Room: Seine C Chair: Jean Claude Martin

Directions Robot: In-the-Wild Experiences and Lessons Learned

Dan Bohus, Chit Saw and Eric Horvitz

Mixed Agent/Social Dynamics for Emotion Computation

Julien Saunier and Hazael Jones

The Effects of Feedback on Human Behavior in Social Media: An Inverse Reinforcement Learning Model

Sanmay Das and Allen Lavoie

Exploring Interaction Strategies for Virtual Characters to Induce Stress in Simulated Job Interviews

Patrick Gebhard, Tobias Baur, Ionut Damian, Gregor Mehlmann, Johannes Wagner and Elisabeth André

09.00 – 10.20 Social Networks II – D4

Room: Parc Montsouris A Chair: Gita Sukthankar

Exploring Indirect Reciprocity in Complex Networks using Coalitions and Rewiring

Ana Peleteiro, Juan Burquillo and Siang Yew Chong

Evolution of Cooperation in Arbitrary Complex Networks

Bijan Ranjbar-Sahraei, Haitham Bou Ammar, Daan Bloembergen, Karl Tuyls and Gerhard Weiss

Using Complex Network Effects for Communication Decisions in Large Multi-robot Teams

Yang Xu, Xuemei Hu, Yan Li, Dong Li and Mengjun Yang

Empathetic Social Choice on Social Networks

Amirali Salehi-Abari and Craig Boutilier

09.00 – 10.20 Verification and Validation II – E4

Room: Parc Montsouris B Chair: Michael Winikoff

On Module Checking and Strategies

Wojciech Jamroga and Aniello Murano

Improving scalability and dependability of stochastic MAS analyses

Logan Brooks, Logan Brooks and Sandip Sen

Verification of Non-Uniform and Unbounded Artifact-Centric Systems: Decidability through Abstraction

Francesco Belardinelli

Autonomous e-coaching in the wild: Empirical validation of a model-based reasoning system

Bart Kamphorst, Michel Klein and Arlette van Wissen

09.00 – 10.20 Planning I – F4

Rooms: Miles Davis A and B Chair: Milind Tambe

Online Planning for Optimal Protector Strategies in Resource Conservation Games

Yundi Qian, William Haskell, Albert Xin Jiang and Milind Tambe

Online Heuristic Planning for Highly Uncertain Domains

Adam Eck and Leen-Kiat Soh

Softgoal-based Plan Selection in Model-driven BDI Agents

Ingrid Nunes and Michael Luck

POMDP Planning and Execution in an Augmented Space

Marek Grzes and Pascal Poupart

Thursday May 8 – Coffee Break

10.20 – 10.50

Thursday May 8 – Morning

10.50 – 12.10 Emotions – A5

Rooms: St Germain des prèes A and B Chair: Avi Rosenfeld

Modeling Facial Signs of Appraisal during interaction Impact on Users' Perception and Behavior

Matthieu Courgeon, Céline Clavel and Jean-Claude Martin

Laughter animation synthesis

Yu Ding, Ken Prepin, Jing Huang, Catherine Pelachaud and Thierry Artières

Gesture generation with low-dimensional embeddings

Chung-Cheng Chiu and Stacy Marsella

Intelligence Arms Race: Delayed Reward Increases Complexity of Agent Strategies

Hiroataka Osawa

Modeling Multiple Fields of Collective Emotions with Brownian Agents

Wonsung Lee, Sungrae Park and il-chul moon

10.50 – 12.10 Energy – B5

Rooms: Les invalides A and B Chair: Alessandro Farinelli

Efficient Coordinated Power Distribution on Private Infrastructure
Andrew Perrault and Craig Boutilier

Power Grid Defense against Malicious Cascading Failure: A Game Theoretic Approach

Paulo Shakarian, Hansheng Lei and Roy Lindelauf

Adaptive Home Heating under Weather and Price Uncertainty using GPs and MDPs

Mike Shann and Sven Seuken

Prediction-of-use games: a cooperative game theory approach to sustainable energy tariffs

Meritzell Vinyals, Valentin Robu, Alex Rogers and Nick Jennings

10.50 – 12.10 Game Theory III – C5

Room: Miles Davis A and B Chair: Juan Antonio Rodriguez Aguilar

Lukasiewicz Games

Enrico Marchioni and Michael Wooldridge

Hard and Soft Equilibria in Boolean Games

Paul Harrenstein, Paolo Turrini and Michael Wooldridge

Evaluating Power of Agents from Dependence Relations in Boolean Games

Jonathan Ben-Naim and Emiliano Lorini

Nash Equilibria in Shared Effort Games

Gleb Polevoy, Stojan Trajanovski and Mathijs de Weerd

10.50 – 12.10 2013 IFAAMAS Victor Lesser Distinguished Dissertation Award Talk

Room: Parc Montsouris A Chair: Michael Winikoff

Thwarting Adversaries with Unpredictability: Massive-scale Game-Theoretic Algorithms for Real-World Security Deployments

Dr. Manish Jain

10.50 – 12.30 Automated Negotiating Agents Competition

Room: St Michel

12.10 – 14.40 Poster Session 2

Room: Foyer

Note: Besides the following posters, full papers from sessions **D4, E4, F4, A5, B5, C5, A6, B6, C6, D6, E6, A7, B7, C7, D7, E7, A8, B8, C8, D8, E8** will also be presented as posters in this poster session

Strategic Guard Placement for Optimal Response to Alarms in Security Games

Nicola Basilico and Nicola Gatti

Cloud Service Selection Based on Contextual Subjective Assessment and Objective Assessment

Lie Qu, Yan Wang, Mehmet A. Orgun, Ling Liu and Athman Bouguettaya

The Impact of Communication on a Human-Agent Shared Mental Model and Team Performance

Nader Hanna and Deborah Richards

The Authorship Dilemma: Alphabetical Or Contribution?

Margareta Ackerman and Simina Brânzei

Goal Directed Policy Conflict Detection and Prioritisation: An Empirical Evaluation

Mukta S. Aphale, Timothy J. Norman and Murat Sensoy

Characterizing Online Cost-Sharing Mechanisms For Demand Responsive Transport Systems

Masabumi S. Furuhata, Liron Cohen, Sven Koenig, Maged Dessouky and Fernando Ordonez

AORTA: Adding Organizational Reasoning to Agents

Andreas Schmidt Jensen and Virginia Dignum

Dynamic Multi-Agent Task Allocation with Spatial and Temporal Constraints

Sofia Amador, Steven Okamoto and Roie Zivan

Hardware-Based Agent Modelling: Event-Driven Reactive Architecture

Eduardo A. Gerlein, T. M. McGinnity, Ammar Belatreche, Sonya Coleman and Yuhua Li

Why Should We Imitate Robots?

Yasser F. O. Mohammad and Toyooki Nishida

On Understanding Diffusion Dynamics of Patrons at a Theme Park

Jiali Du, Akshat Kumar and Pradeep Varakantham

Event-Action Modules for Complex Reactivity in Logical Agents

Stefania Costantini and Régis Riveret

Mechanisms for Arranging Ride Sharing and Fare Splitting for Last-Mile Travel Demands

Shih-Fen Cheng, Duc Thien Nguyen and Hoong Chuin Lau

Context-Sensitive Sharedness Criteria for Teamwork

Maaike Harbers, Catholijn M. Jonker and M. Birna van Riemsdijk

Automated Strategy Adaptation for Multi-times Bilateral Closed Negotiations

Katsuhide Fujita

Stable Matching Problems with Soft Constraints

Maria Silvia Pini, Francesca Rossi and Kristen Brent Venable

Diagnosing Faults in a Temporal Multi-Agent Resource Allocation

Yedida Bar-Zev, Roni Stern and Meir Kalech

Design and Experimental Evaluation of Market Mechanisms for Participatory Sensing Environments

George Thanos, Costas Courcoubetis, Evangelos Markakis and George D. Stamoulis

Multi-Agent Simulation Based Control of Complex Systems

Tomas Navarrete Gutiérrez, Laurent Ciarletta and Vincent Chevrier

One-Way Games

Andres Abeliuk, Gerardo Berbeglia and Pascal Van Hentenryck

Decision-Theoretic Approach to Maximizing Fairness in Multi-Target Observation in Multi-Camera Surveillance

Prabhu Natarajan, Kian Hsiang Low and Mohan Kankanhalli

Norm Monitoring with Asymmetric Information

Felipe Meneguzzi, Brian Logan and Moser Silva Fagundes

People Are Processors: Coalitional Auctions for Complex Projects

Piotr Skowron, Krzysztof Rzdca and Anwitaman Datta

Security Games with Partial Surveillance

Youzhi Zhang and Xudong Luo

Social Network Analysis for Judgment Aggregation

Silvano Colombo Tosatto and Marc van Zee

Team Formation with Learning Agents that Improve Coordination

Somchaya Liemhetcharat and Manuela Veloso

Evaluating the Believability of Virtual Agents with Anticipatory Abilities

Quentin Reynaud, Jean-Yves Donnat and Vincent Corruble

Knowledge Revision for Reinforcement Learning with Abstract MDPs, Kyriakos Efthymiadis

Sam Devlin and Daniel Kudenko

Sample Efficiency Improvement on Neuroevolution via Estimation-Based Elimination Strategy

Shengbo Xu, Yuki Inoue, Tetsunari Inamura, Hirotaka Moriguchi and Shinichi Honiden

Minimal Extending Sets in Tournaments

Felix Brandt, Paul Harrenstein and Hans Georg Seedig

Modeling Heterogeneous Speed Profiles in Discrete Models for Pedestrian Simulation

Stefania Bandini, Luca Crociani and Giuseppe Vizzari

Orienting a Flock via Ad Hoc Teamwork

Katie Genter and Peter Stone

Empirical Investigation on Pedestrian Dynamics in Presence of Groups: A Real World Case Study

Stefania Bandini, Luca Crociani, Andrea Gorrini and Giuseppe Vizzari

Agent-Coordinated Virtual Power Plants of Electric Vehicles

Micha Kahlen, Wolfgang Ketter and Jan van Dalen

A Resource-Sensitive Account of the Use of Artifacts

Daniele Porello and Nicolas Troquard

Monte Carlo Bayesian Hierarchical Reinforcement Learning

Vien Anh Ngo, Hung Ngo and Wolfgang Ertel

Conflicting Viewpoint Relational Database Querying: An Argumentation Approach

Nouredine Tamani, Madalina Croitoru and Patrice Buche

A Novel Ex-Post Truthful Mechanism for Multi-Slot Sponsored Search Auctions

Debmalya Mandal and Yadati Narahari

A Consistency Based Approach of Action Model Learning in a Community of Agents

Christophe Rodrigues, Henry Soldano, Gauvain Bourgne and Céline Rouveirol

Team Behavior in Interactive Dynamic Influence Diagrams with Applications to Ad Hoc Teams

Muthukumaran Chandrasekaran, Prashant Doshi, Yifeng Zeng and Yingke Chen

Agents with Truly Perfect Recall in Alternating-Time Temporal Logic

Nils Bulling, Wojciech Jamroga and Matei Popovici

Using Reward/Utility Based Impact Scores in Partitioning

William Curran, Adrian Agogino and Kagan Tumer

A Game-Theoretic Approach for Threats Detection and Intervention in Surveillance

Wenjun Ma, Weiru Liu, Paul Miller and Xudong Luo

A Statistical Model Checker for Situation Calculus Based Multi-Agent Models

Christian Kroiß

Open Census for Addressing False Identity Attacks in Agent-based Decentralized Social Networks

Song Qin, Marius C. Silaghi, Ihsan Hussien, Makoto Yokoo, Toshihiro Matsui and Katsutoshi Hirayama

Leveraging Social Networks to Motivate Humans to Train Agents

Guangliang Li, Hayley Hung, Shimon Whiteson and W. Bradley Knox

A Judgment Set Similarity Measure Based on Prime Implicants

Marija Slavkovic and Thomas Ågotnes

Comparison and Validation of Synthetic Social Contact Networks for Epidemic Modeling

Huadong Xia, Jiangzhuo Chen, Madhav V. Marathe and Samarth Swarup

Approximating Difference Evaluations with Local Knowledge

Mitchell Colby, William Curran, Carrie Rebhuhn and Kagan Tumer

Multiagent Metareasoning Through Organizational Design

Jason Sleight and Edmund H. Durfee

Run-Time Norm Compliance in BDI Agents

JeeHang Lee, Julian Padget, Brian Logan, Daniela Dybalova and Natasha Alechina

A Self-Organizing Model for Decentralized Virtual Environments in Agent-Based Simulation Systems

Mohammad Al-Zinati and Rym Zalila Wenkstern

CONAN: A heuristic strategy for Concurrent Negotiating AgeNts

Bedour Alrayes, Özgür Kafali and Kostas Stathis

Multiagent Coordination for Demand Management with Energy Generation and Storage

Ronghuo Zheng, Ying Xu, Nilanjan Chakraborty and Katia Sycara

Simulation-Based Behavior Tracking of Pedestrians in Partially Observed Indoor Environments

Arsène Fansi T., Vincent Thomas, Olivier Buffet, Fabien Flacher and Alain Dutet

Learning to Schedule Electric Vehicle Charging Given Individual Customer Preferences

Konstantina Valogianni, Wolfgang Ketter and John Collins

Topology Aware Convention Emergence

Mohammad Rashedul Hasan, Sherief Abdallah and Anita Raja

Mission-Adaptive Crowd Navigation for Mobile Robots

Saad Arif, Saad Ahmed Khan and Ladislau Bölöni

Overcoming Information Overload with Artificial Selective Agents

Luis Macedo, Hernani Costa and Amílcar Cardoso

Fixed-Parameter Tractability of Integer Generalized Scoring Rules

Lirong Xia

Demand-Based Apportionment on Electricity Payment of HVAC Systems

Yi-ting Tsao, Chiao-Ching Huang and Jane Yung-jen Hsu

Attribute Based Object Recognition by Human Language

Zhe Zhao, Jiongkun Xie and Xiaoping Chen

Correlated Multi-Dimensional QoS Metrics for Trust Evaluation within Web Services

Mohamad Mehdi, Nizar Bouguila and Jamal Bentahar

Mechanism Design for Route Allocation in Multiple-Commodity Network

Qipeng Liu, Yicheng Liu and Pingzhong Tang

A Quality Assuring Multi-Armed Bandit Crowdsourcing Mechanism with Incentive Compatible Learning

Shweta Jain, Sujit Gujar, Onno Zoeter and Y. Narahari

Policy Optimization by Marginal-MAP Probabilistic Inference in Generative Models

Igor Kiselev and Pascal Poupart

Truthful Mechanisms for the Location of Different Facilities

Paolo Serafino and Carmine Ventre

Joy, Distress, Hope, and Fear in Reinforcement Learning

Elmer Jacobs, Joost Broekens and Catholijn Jonker

Solving Adversarial Patrolling Games with Bounded Error

Michal Abaffy, Tomáš Brázdil, Vojtech Reháč, Branislav Bošanský, Antonín Kucera and Jan Krcál

Cooperation-Eliciting Prisoner's Dilemma Payoffs for Reinforcement Learning Agents

Koichi Moriyama, Satoshi Kurihara and Masayuki Numao

Neural-Symbolic Cognitive Agents: Architecture, Theory and Application

Leo de Penning, Artur S. d'Avila Garcez, Luis C. Lamb and John-Jules C. Meyer

Challenges for Multi-Agent Coordination Theory Based on Empirical Observations

Victor Lesser

The Geometry of Desire

Luis Antunes, Davide Nunes and Helder Coelho

From Autistic to Social Agents

Frank Dignum, Rui Prada and Gert Jan Hofstede

Mutiagent Systems for Social Computation

Michael Rovatsos

Computational Epidemiology as a Challenge Domain for Multiagent Systems

Samarth Swarup, Stephen Eubank and Madhav Marathe

12.10 – 14.40 Demos

Room: Sorbonne

Biological Inspired Multi-Robot Foraging

Sjriek Alers, Daniel Claes, Karl Tuyls and Gerhard Weiss

Your Digital Image: Factors Behind Demographic and Psychometric Predictions from Social Network Profiles

Yoram Bachrach, Thore Graepel, Pushmeet Kohli, Michal Kosinski and David Stillwell

Follow The Leader in a Consensus Network as a Solution to Manage an Smart Grid: The Balearic Islands Case

Miguel Rebollo, Carlos Carrascosa and Alberto Palomares

Multi-Agent GIS System for Improved Spatial Load Forecasting

Cruz E. Borges, Oihane Kamara Esteban, Ander Pijoan and Yoseba Penya

Scrutable Plan Enactment via Argumentation and Natural Language Generation

Martin Caminada, Roman Kutlak, Nir Oren and Wamberto Vasconcelos

MobiCrowd: Simulating Crowds with Periodic and Social Mobility

Cheng-Te Li and Hsun-Ping Hsieh

A Testbed for Autonomous Robot Surveillance

Stefan Witwicki, Jose Carlos Castillo Montoty, João Messias, João Reis, Jesús Capitán Fernández, Francisco S. Melo, Pedro U. Lima and Matthijs Spaan

Adding BDI Agents to MATSim Traffic Simulator

Qingyu Chen, Arie Wilsher, Lin Padgham and Dharendra Singh

Tactics Development Framework

Rick Evertsz, John Thangarajah, Nitin Yadav and Thanh Li

Engineering JIAC Multi-Agent Systems

Marco Lützenberger, Thomas Konnerth, Tobias Küster, Jakob Tonn, Nils Masuch and Sahin Albayrak

Request Driven Social Sensing

Thomas Christopher King, Gleb Polevoy, Qingzhi Liu, Virginia Dignum, M. Birna van Riemsdijk, Martijn Warnier and Mathijs de Weerd

Building a Narrative Conversational Agent using a Component-based Architecture

William Boisseleau, Ovidiu Serban and Alexandre Pauchet

An Agent-based Game for the Predictive Diagnosis of Parkinson's Disease

Yundong Cai, Zhiqi Shen, Siyuan Liu, Han Yu, Xiaogang Han, Jun Ji, Martin J. McKeown, Cyril Leung and Chunyan Miao

Iipseity: An open-source platform for synthesizing and validating artificial cognitive systems in MAS

Fabrice Lauri and Abderrafiaa Koukam

Switching between levels of Decision Making in MAS Organisation: application to flexible assembly cells

Cyrille Pach, Emmanuel Adam, Thierry Berger and Damien Trentesaux

Sustainable Relationship with Product by Implementing Intentional Interaction

Hiroataka Osawa

Micro Smart Grids and Electromobility Charging Optimization with a Distributed Agent Application

Christopher-Eyk Hrabia, Marco Lützenberger, Tobias Küster and Sahin Albayrak

Logic-based and Robust Decision Making for Robots in Real World

Megumi Fujita, Yuki Goto, Naoyuki Nide, Ken Satoh and Hiroshi Hosobe

MIXER: Why the Difference?

Asad Nazir, Ruth Aylett, Mei Yui Lim, Birgit Endrass, Lynne Hall and Christopher Ritter

Thursday May 8 – Afternoon

14.40 – 16.00 Logic II – A6

Rooms: St Germain des près A and B Chair: JJ Meyers

Strategy Games: A Renewed Framework

Fabio Mogavero, Aniello Murano and Luigi Sauro

Inconsistency Measurement Thanks to MUS Decomposition

Said Jabbour, Yue Ma and Raddaoui Badran

A STIT logic analysis of social influence

Emiliano Lorini and Giovanni Sartor

The Complexity of Group Announcements

Thomas Agotnes, Hans van Ditmarsch and Tim French

14.40 – 16.00 Task and goods allocation III – B6

Rooms: Les invalides A and B Chair: Betsy Sklar

A New Analysis Method for Dynamic, Distributed Constraint Satisfaction

Roger Mailler and Huimin Zheng

A Privacy-Preserving Algorithm for Distributed Constraint Optimization

Tal Grinshpoun and Tamir Tassa

A Mechanism to Optimally Balance Cost and Quality of Labeling Tasks Outsourced to Strategic Agents

Satyanath Bhat, Swaprava Nath, Onno Zoeter, Sujit Gujar, Yadati Narahari and Chris Dance

Building THINC: User Incentivization and Meeting Rescheduling for Energy Savings

Jun-young Kwak, Debarun Kar, William Haskell, Pradeep Varakantham and Milind Tambe

14.40 – 16.00 Agent Oriented Software Engineering II – C6

Room: Miles Davis A and B Chair: Zahia Guessoum

Checking consistency of agent designs against interaction protocols for early-phase defect location

Yoosef Abushark, Tim Miller, James Harland and John Thangarajah

A Hybrid Approach for Fault Detection in Autonomous Physical Agents

Eliahu Khalastchi, Meir Kalech and Lior Rokach

Peer-Design Agents for Reliably Evaluating Distribution of Outcomes in Environments Involving People

Moshe Mash, Raz Lin and David Sarne

Evaluating Coverage Based Intention Selection

Max Waters, Lin Padgham and Sebastian Sardina

14.40 – 16.00 Humans and Agents III – D6

Room: Parc Montsouris A Chair: Catholijn Jonker

A Field Study of Human-Agent Interaction for Electricity Tariff Switching

Alper Alan, Enrico Costanza, Joel Fischer, Sarvapali Ramchurn, Tom Rodden and Nick Jennings

Robot Mood is Contagious: Effects of Robot Body Language in the Imitation Game

Junchao Xu, Joost Broekens, Koen Hindriks and Mark Neerincx

Multi-Agent System for Recruiting Patients for Clinical Trials

Samhar Mahmoud, Simon Miles, Adel Taweel, Michael Luck, Gareth Tyson, Tjeerd Vanstaa and Brendan Delaney

An Agent for the Prospect Presentation Problem

Amos Azaria, Ariella Richardson and Sarit Kraus

14.40 – 16.00 Mechanism Design I – E6

Room: Parc Montsouris B Chair: Michael Wellman

On Regular and Approximately Fair Allocations of Indivisible Goods

Diodato Ferraioli, Laurent Gourves and Jerome Monnot

Truthful Mechanisms for Combinatorial AC Electric Power Allocation and Related Auction Problems

Chi-Kin Chau, Khaled Elbassioni and Majid Khonji

Price of Fairness in Kidney Exchange

John Dickerson, Ariel Procaccia and Tuomas Sandholm

Incentives in Ridesharing with Deficit Control

Dengji Zhao, Dongmo Zhang, Enrico Gerding, Yuko Sakurai and Makoto Yokoo

Thursday May 8 – Coffee Break

16.00 – 16.30

Thursday May 8 – Keynote

16.30 – 17.30

From Agents to Electronic Order

Michael Luck

Room: Seine

Thursday May 8 – Evening

20.00 - 23.00

Gala dinner

The gala dinner will take place on a "bateau-mouche", a nice boat that will travel on the Seine river during a seated gastronomic dinner. Reserved for participants with tickets (Please see page 64 for more details).

Friday May 9, 2014

Friday May 9 – Morning

09.00 – 10.20 Auctions – A7

Rooms: *St Germain des près A and B* Chair: Makoto Yokoo

Combinatorial Auctions without Money

Dimitris Fotakis, Piotr Krysta and Carmine Ventre

Auction Mechanisms for Demand-Side Intermediaries in Online Advertising Exchanges

Lampros Stavrogiannis, Enrico Gerding and Maria Polukarov

Auctioning A Cake: Truthful Auctions of Heterogeneous Divisible Goods

Yonatan Aumann, Yair Dombb and Avinatan Hassidim

Equilibrium Strategies for Multi-unit Sealed-bid Auctions with Multi-unit Demand Bidders

Ioannis Vetsikas

09.00 – 10.20 Humans and Agents IV – B7

Rooms: *Les invalides A and B* Chair: Sarvapali D. Ramchurn

SimSensei Kiosk: A Virtual Human Interviewer for Healthcare Decision Support

David DeVault, Ron Artstein, Grace Benn, Teresa Dey, Ed Fast, Alesia Gainer, Kallirroï Georgila, Jon Gratch and Arno Hartholt, Margaux Lhomme, Gale Lucas, Stacy Marsella, Fabrizio Morbini, Angela Nazarian, Stefan Scherer, Giota Stratou, Apar Suri, David Traum, Rachel Wood, Yuyu Xu, Albert Rizzo and Louis-Philippe Morency

An Interactive Approach for Situated Task Specification through Verbal Instructions

Cetin Mericli, Steven Klee, Jack Paparian and Manuela Veloso

Offline Policy Evaluation Across Representations with Applications to Educational Games

Travis Mandel, Yun-En Liu, Sergey Levine, Emma Brunskill and Zoran Popović

Werewolves, Cheats, and Cultural Sensitivity

Ruth Aylett, Mei Yü Lim, Lynne Hall, Birgit Endrass, Sarah Tazzyman, Christopher Ritter, Asad Nazir and Ana Paiva

09.00 – 10.20 Path Planning – C7

Room: St Michel Chair: Noa Agmon

Multi-Robot Adversarial Patrolling: Facing Coordinated Attacks

Efrat Sless, Noa Agmon and Sarit Kraus

Gauss Meets Canadian Traveler: Shortest-Path Problems with Natural Dynamics

Debadeepta Dey, Andrey Kolobov, Rich Caruana, Ece Kamar, Eric Horvitz and Ashish Kapoor

Conservative collision prediction and avoidance for stochastic trajectories in continuous time and space

Jan-Peter Calliess, Michael Osborne and Stephen J. Roberts

Finding Coordinated Paths for Multiple Holonomic Robots in 2D Polygonal Environment

Pavel Janovsky, Michal Cap and Jiri Vokrinek

09.00 – 10.20 Learning II – D7

Room: Parc Montsouris A Chair: Karl Tuyls

Automatic Rule Identification for Agent-Based Crowd Models Through Gene Expression Programming

Jinghui Zhong, Limbo Luo, Wentong Cai and Michael Lees

Removing Redundant Conflict Value Assignments in Resolvent Based Nogood Learning

Jimmy Lee and Yuxiang Shi

Fast Adaptive Learning in Repeated Stochastic Games by Game Abstraction

Mohamed Elidrisi, Nicholas Johnson, Maria Gini and Jacob Crandall

Avoiding Convergence in Cooperative Coevolution with Novelty Search

Jorge Gomes, Anders Christensen and Pedro Mariano

09.00 – 10.20 Blue Sky Ideas – E7

Room: Parc Montsouris B Chair: Munindar Singh

Challenges for Multi-Agent Coordination Theory Based on Empirical Observations

Victor Lesser

The Geometry of Desire

Luis Antunes, Davide Nunes and Helder Coelho

From Autistic to Social Agents

Frank Dignum, Rui Prada and Gert Jan Hofstede

Mutiagent Systems for Social Computation

Michael Rovatsos

Computational Epidemiology as a Challenge Domain for Multiagent Systems

Samarth Swarup, Stephen Eubank and Madhav Marathe

Friday May 9 – Coffee Break

10.20 – 10.40

Friday May 9 – ACM-SIGAI Talk

10.40 – 11.40

Putting the Agent in Agent-Based Modeling

Michael Wellman

Room: Seine

Friday May 9 – Morning

11.40 – 13.00 Social Choice – A8

Rooms: St Germain des prèes A and B Chair: Frank Dignum

Counting Votes for Aggregating Judgments

Patricia Everaere, Sebastien Konieczny and Pierre Marquis

Axiomatic Analysis of Aggregation Methods for Collective Annotation

Justin Kruger, Ulle Endriss, Raquel Fernandez and Ciyang Qing

Finding Strategyproof Social Choice Functions via SAT Solving

Felix Brandt and Christian Geist

Coexistence of Pareto Efficiency and False-name-proofness in Social Choice

Julien Lesca, Taiki Todo and Makoto Yokoo

11.40 – 13.00 Algorithmic Game Theory II – B8

Rooms: Les invalides A and B Chair: Katia Sycara

Approximating the Shapley Value via Multi-Issue Decompositions

Hossein Azari Soufiani, Denis Charles, Max Chickering and David Parkes

Finding the Pareto Curve in Bimatrix Games is Easy

Nicola Gatti and Tuomas Sandholm

Strategy-proof matching with regional minimum quotas

Masahiro Goto, Naoyuki Hashimoto, Atsushi Iwasaki, Yujiro Kawasaki, Suguru Ueda, Yosuke Yasuda and Makoto Yokoo

Generalized Mirror Descents in Congestion Games with Splittable Flows

Po-An Chen and Chi-Jen Lu

11.40 – 13.00 Learning III – C8

Room: St Michel Chair: Kagan Tumer

Subjectivity Grouping: Learning from Users' Rating Behavior

Hui Fang, Jie Zhang and Nadia Magnenat Thalmann

Boosted and Reward-regularized Classification for Apprenticeship Learning

Bilal Piot, Matthieu Geist and Olivier Pietquin

Further Developments of Extensive-Form Replicator Dynamics using Sequence-Form Representations

Marc Lanctot

Cortical prediction markets

Balduzzi David

11.40 – 13.00 Planning II – D8

Room: Parc Montsouris A Chair: Matthijs Spaan

Planning with Macro-Actions in Decentralized POMDPs

Christopher Amato, George Konidaris and Leslie Kaelbling

Exploiting Separability in Multi-Agent Planning with Continuous-State MDPs

Jilles Dibangoye, Christopher Amato, Olivier Buffet and François Charpillet

Improving UCT Planning via Approximate Homomorphisms

Nan Jiang, Satinder Singh and Richard Lewis

Linear Support for Multi-Objective Coordination Graphs

Diederik Roijers, Shimon Whiteson and Frans A. Oliehoek

11.40 – 13.00 Mechanism Design II – E8

Room: Parc Montsouris B Chair: Benito Mendoza

Fair assignment of indivisible objects under ordinal preferences

Haris Aziz, Serge Gaspers, Simon Mackenzie and Toby Walsh

Incentive Compatible Resource Allocation Without Money

Ruggiero Cavallo

Characterizing conflicts in fair division of indivisible goods using a scale of criteria

Sylvain Bouveret and Michel Lemaître

A POMDP Based Approach to Optimally Select Sellers in Electronic Marketplaces

Athirai A. Irissappane, Frans A. Oliehoek and Jie Zhang

Friday May 9 – Lunch and Community Meeting

13.00 – 14.30 Community Meeting

Room: Seine

Keynote Speakers

Wednesday May 7, 2014

16.30-17.30

Sensory networks and distributed cognition in animal groups

Prof. Iain D. Couzin

Department of Ecology & Evolutionary Biology, Princeton University, USA

Room: Seine

Understanding how social influence shapes biological processes is a central challenge in contemporary science, essential for achieving progress in a variety of fields ranging from the organization and evolution of coordinated collective action among cells, or animals, to the dynamics of information exchange in human societies. Using an integrated experimental and theoretical approach, I will address how, and why, animals coordinate behavior. In many schooling fish and flocking birds, decision-making by individuals is so integrated that it has been associated with the concept of a "collective mind". As each organism has relatively local sensing ability, coordinated animal groups have evolved collective strategies that allow individuals, through the dynamical properties of social transmission, to access higher-order capabilities at the group level. However we know very little about the relationship between individual and collective cognition. A major limitation is that it has not been possible to observe directly the pathways of communication, and social networks are typically based on proxies such as spatial proximity among organisms. I will demonstrate new imaging technology that allows us to reconstruct (automatically) the dynamic, time-varying networks that correspond to the visual cues employed by organisms when making movement decisions. Sensory networks are shown to provide a much more accurate representation of how social influence propagates in groups, and one that cannot be captured correctly by social networks based on spatial proximity (regardless of how they are parameterized). I investigate the coupling between spatial and information dynamics in groups and reveal that emergent problem solving is the predominant mechanism by which mobile groups sense, and respond to complex environmental gradients. This distributed sensing requires rudimentary cognition and is shown to be highly robust to noise. I will also demonstrate the critical role uninformed individuals (those who have no information about the feature upon which a collective decision is being made) play in fast, and effective, democratic consensus decision-making in collectives.

Biography: Iain Couzin is a Professor in the Department of Ecology and Evolutionary Biology at Princeton University. Previously he was an Assistant Professor at Princeton University, a Royal Society University Research Fellow in the Department of Zoology, University of Oxford, and Junior Research Fellow in the Sciences at Balliol College, Oxford. His work aims to reveal the fundamental principles that underlie evolved collective behavior, and consequently his research includes the study of a wide range of biological systems, from cellular collectives to insect swarms, fish schools and human crowds. In recognition of his research he was recipient of a Searle Scholar Award in 2008, the Mohammed Dahleh Award in 2009, Popular Science Magazines "Brilliant 10" award in 2010, PopTech Science and Public Leadership award in 2011 and National Geographic Emerging Explorer Award in 2012.

Thursday May 8, 2014
16.30-17.30

From Agents to Electronic Order

Prof. Michael Luck

Department of Informatics, King's College London

Room: Seine

Trust, reputation, norms and organisations are all relevant to the effective operation of open and dynamic multiagent systems. Inspired by human systems, yet not constrained by them, these concepts provide a means to establish a sense of order in computational environments (and mixed human-machine ones). In this talk I will review previous work across a range of areas in support of the need to develop theories and systems that provide the computational analogue of common social coordination mechanisms used by humans, in addition to those that might only find favour in computational systems. I will focus on particular examples that illustrate different approaches, including through the use of norms and contracts, and suggest some key challenges that need to be addressed to drive the field forward.

Biography: Michael Luck is Professor of Computer Science and Head of the School of Natural and Mathematical Sciences at King's College London, where he also works in the Agents and Intelligent Systems group, undertaking research into agent technologies and intelligent systems. He is Scientific Advisor to the Board for Aerogility. His work has sought to take a principled approach to the development of practical agent systems, and spans, among other areas, formal models for intelligent agents and multi-agent systems, norms and institutions, trust and reputation, application to bioinformatics and health, and deployment

and technology forecasting. He is a director of the International Foundation for Autonomous Agents and Multi-Agent Systems (IFAAMAS), was a member of the Executive Committee of AgentLink III, the European Network of Excellence for Agent-Based Computing, having previously been the Director of AgentLink II. He is an editorial board member of Autonomous Agents and Multi-Agent Systems, the International Journal of Agent-Oriented Software Engineering, Web Intelligence and Agent Systems, and ACM Transactions on Autonomous and Adaptive Systems, as well as for the SpringerBriefs in Intelligent Systems series. He was also general co-chair of the Ninth International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2010), held in Toronto, Canada in May 2010.

Friday May 9, 2014

10.40-11.40

Putting the Agent in Agent-Based Modeling

Prof. Michael Wellman

Computer Science & Engineering at the University of Michigan

Winner of 2014 ACM/SIGAI Autonomous Agents award

Room: Seine

Biography: Michael P. Wellman is Professor of Computer Science & Engineering at the University of Michigan. He received a PhD from the Massachusetts Institute of Technology in 1988 for his work in qualitative probabilistic reasoning and decision-theoretic planning. From 1988 to 1992, Wellman conducted research in these areas at the USAF's Wright Laboratory. For the past 20+ years, his research has focused on computational market mechanisms for distributed decision making and electronic commerce. As Chief Market Technologist for TradingDynamics, Inc. (now part of Ariba), he designed configurable auction technology for dynamic business-to-business commerce. Wellman previously served as Chair of the ACM Special Interest Group on Electronic Commerce (SIGecom), and as Executive Editor of the Journal of Artificial Intelligence Research. He is a Fellow of the Association for the Advancement of Artificial Intelligence and the Association for Computing Machinery.

AAMAS Awards 2014

There are a number of awards associated with the AAMAS 2014 conference, the winners of these awards will be announced at the AAMAS gala dinner.

Best Paper Nominations

The following papers (in alphabetical order by author) have been nominated for Best Paper:

Characterizing conflicts in fair division of indivisible goods using a scale of criteria

Sylvain Bouveret and Michel Lemaître

SimSensei Kiosk: A Virtual Human Interviewer for Healthcare Decision Support

David DeVault, Ron Artstein, Grace Benn, Teresa Dey, Ed Fast, Alesia Gainer, Kallirroi Georgila, Jon Gratch and Arno Hartholt, Margaux Lhomme, Gale Lucas, Stacy Marsella, Fabrizio Morbini, Angela Nazarian, Stefan Scherer, Giota Stratou, Apar Suri, David Traum, Rachel Wood, Yuyu Xu, Albert Rizzo and Louis-Philippe Morency

Exploiting Separability in Multi-Agent Planning with Continuous-State MDPs

Jilles Dibangoye, Christopher Amato, Olivier Buffet and Francois Charpillet

Jay Modi Best Student Paper

The following papers (in alphabetical order by author) have been nominated for Jay Modi Best Student Paper:

Clustering Objects with Robots That Do Not Compute

Melvin Gauci, Jianing Chen, Wei Li, Tony J. Dodd and Roderich Gross

Constraining Information Sharing to Improve Cooperative Information Gathering

Igor Rochlin and David Sarne

Evaluating Coverage Based Intention Selection

Max Waters, Lin Padgham and Sebastian Sardina

Blue Sky Ideas Best Paper

The following papers have been nominated for Blue Sky Ideas Best Paper:

Mutiagent Systems for Social Computation

Michael Rovatsos

Computational Epidemiology as a Challenge Domain for Mutiagent Systems

Samarth Swarup, Stephen Eubank and Madhav Marathe

From Autistic to Social Agents

Frank Dignum, Rui Prada and Gert Jan Hofstede

IFAAMAS Victor Lesser Distinguished Dissertation Award

This award was started for dissertations defended in 2006 and is named for Professor Victor Lesser, a long standing member of the AAMAS community who has graduated a large number of outstanding PhD students in the area. To be eligible for the 2013 award, a dissertation had to have been written as part of a PhD defended during the year 2013, and had to be nominated by the supervisor with three supporting references. Selection is based on originality, depth, impact and written quality, supported by quality publications. Previous winners of this award were Birgit Endrass (2012), Daniel Villatoro (2011), Bo An (2010), Andrew Gilpin (2009), Ariel Procaccia (2008), Radu Jurca (2007), and Vincent Conitzer (2006).

The 2013 IFAAMAS Victor Lesser Distinguished Dissertation Award recipient is Dr. Manish Jain, whose thesis titled "Thwarting Adversaries with Unpredictability: Massive-scale Game-Theoretic Algorithms for Real-World Security Deployments" was supervised by Prof. Milind Tambe. The committee also wanted to recognise two other nominees: Dr. Iolanda Leite, whose thesis titled "Long-term Interactions with Emphatic Social Robots" was supervised by A/Profs Carlos Martinhos and Ana Paiva; and Dr. Reshef Meir, whose thesis titled "Mechanisms for Stability and Welfare: Increasing Cooperation among Self-interested Agents" was supervised by Prof. Jeffrey S. Rosenschein.

ACM- SIGAI Autonomous Agents Award

The selection committee for the ACM/SIGART Autonomous Agents Research Award is pleased to announce that the recipient of the 2014 award is Professor Michael Wellman. Michael P. Wellman is Professor of Computer Science & Engineering at the University of Michigan. He received a PhD from the Massachusetts Institute of Technology in 1988 for his work in qualitative probabilistic reasoning and decision-theoretic planning. From 1988 to 1992, Wellman conducted research in these areas at the USAF's Wright Laboratory. For the past 20+ years, his research has focused on computational market mechanisms for distributed decision making and electronic commerce. As Chief Market Technologist for TradingDynamics, Inc. (now part of Ariba), he designed configurable auction technology for dynamic business-to-business commerce. Wellman previously served as Chair of the ACM Special Interest Group on Electronic Commerce (SIGecom), and as Executive Editor of the Journal of Artificial Intelligence Research. He is a Fellow of the Association for the Advancement of Artificial Intelligence and the Association for Computing Machinery.

IFAAMAS Influential Paper Award

This year's IFAAMAS Influential Paper Award winner is Onn Shehory and Sarit Kraus, in recognition of their distinguished contributions to the field as exemplified by the following influential paper:

*Onn Shehory and Sarit Kraus. **Methods for task allocation via agent coalition formation.** Artificial Intelligence, vol. 101 (1-2), May 1998, pp. 165-200.*

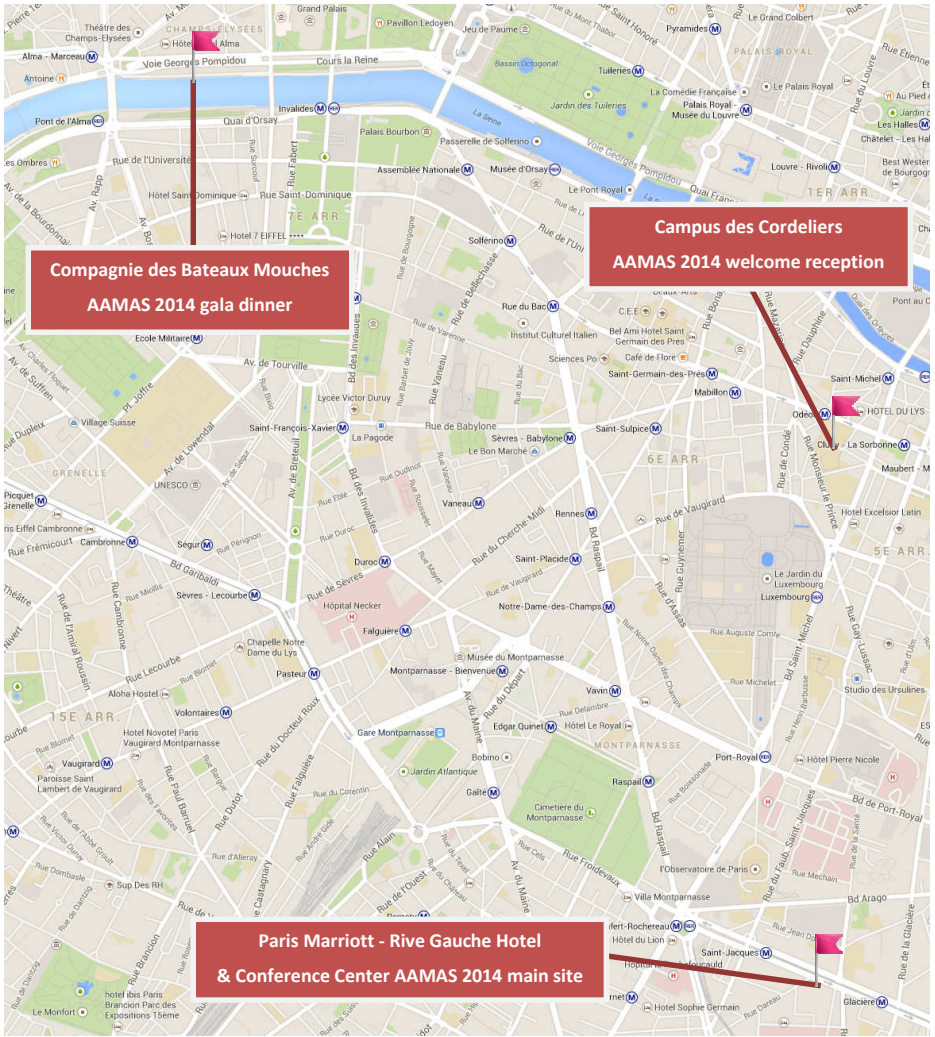
AAAI Membership

AAMAS is pleased to acknowledge its cooperation with the Association for the Advancement of Artificial Intelligence (AAAI) (www.aaai.org), which will be publicizing the conference to its membership.

Of special interest to conference attendees is an introductory membership offer from AAAI, which provides a complimentary 1-year online membership to conference participants who are new to AAAI.

Please send a message to membership14@aaai.org for further details.

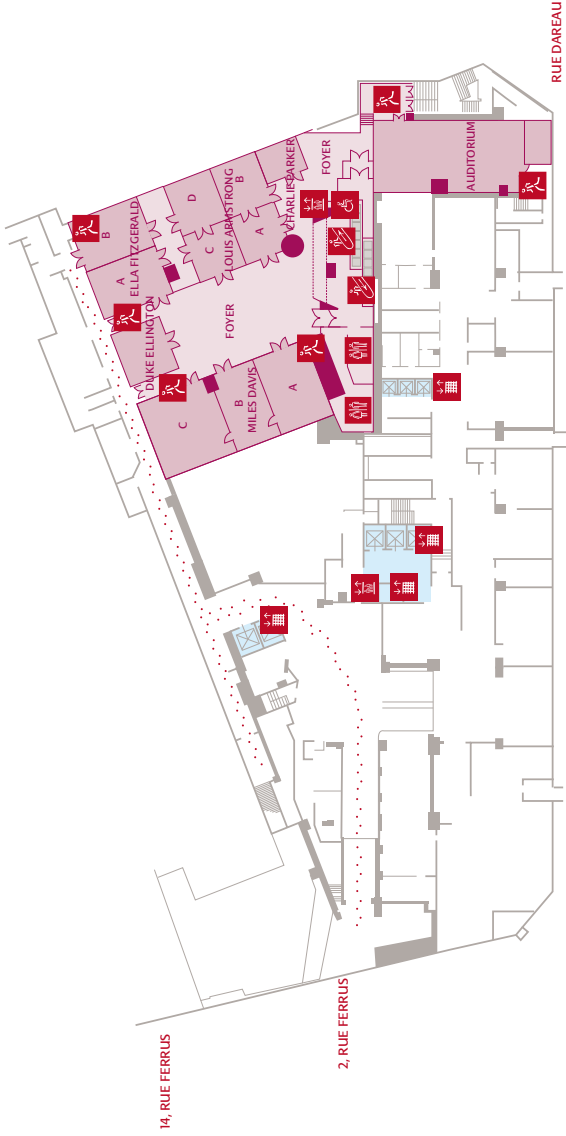
AAMAS 2014 Situation Map



AAMAS 2014 Floor Maps

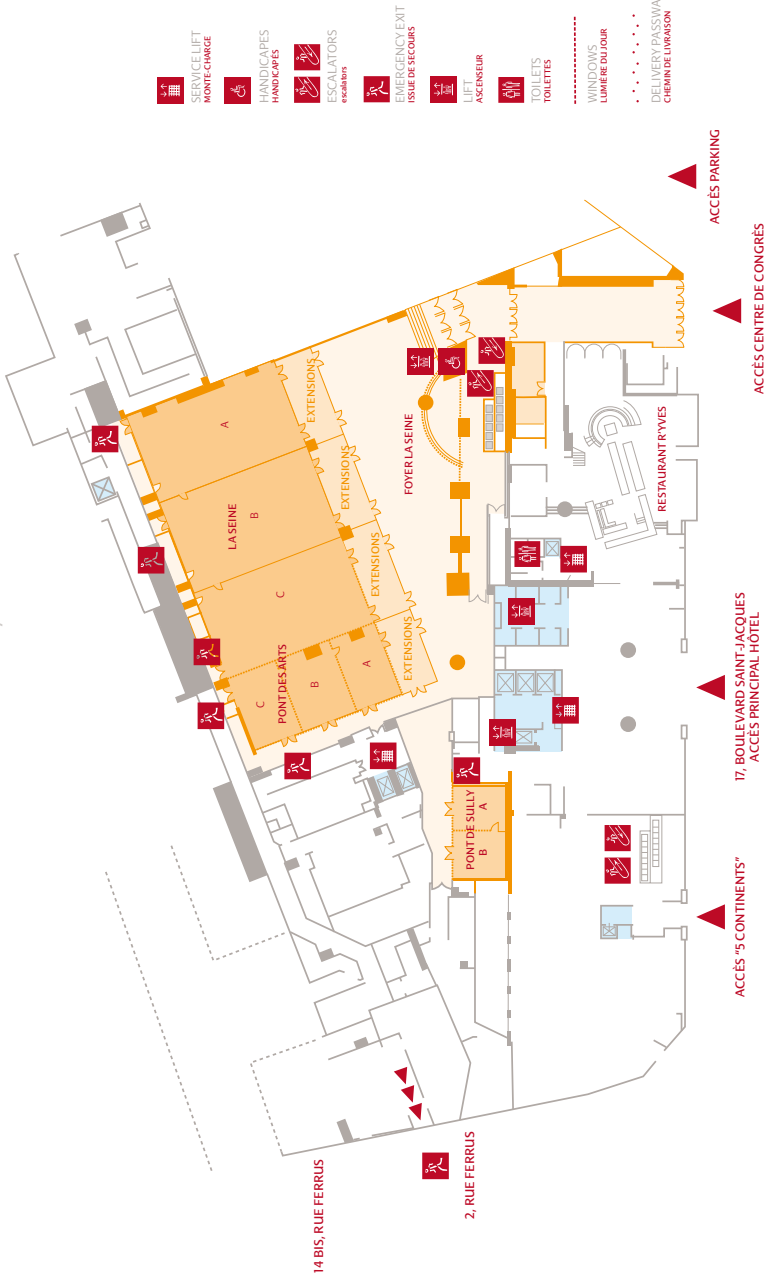
LES CLUBS DE JAZZ/'JAZZ'-LEVEL NIVEAU -1 / LEVEL -1

-  ESCALIER LIFT
-  MONTE-CHARGE
-  HANDICAPES
-  HANDICAPES
-  ESCALATORS
-  EMERGENCY EXIT
-  ISSUE DES SECOURS
-  LIFT
-  ASCENSEUR
-  TOILETS
-  TOILETES
-  WINDOWS
-  LUMIERE DU JOUR
-  DELIVERY PASSWAY
-  CHEMIN DE LIVRAISON



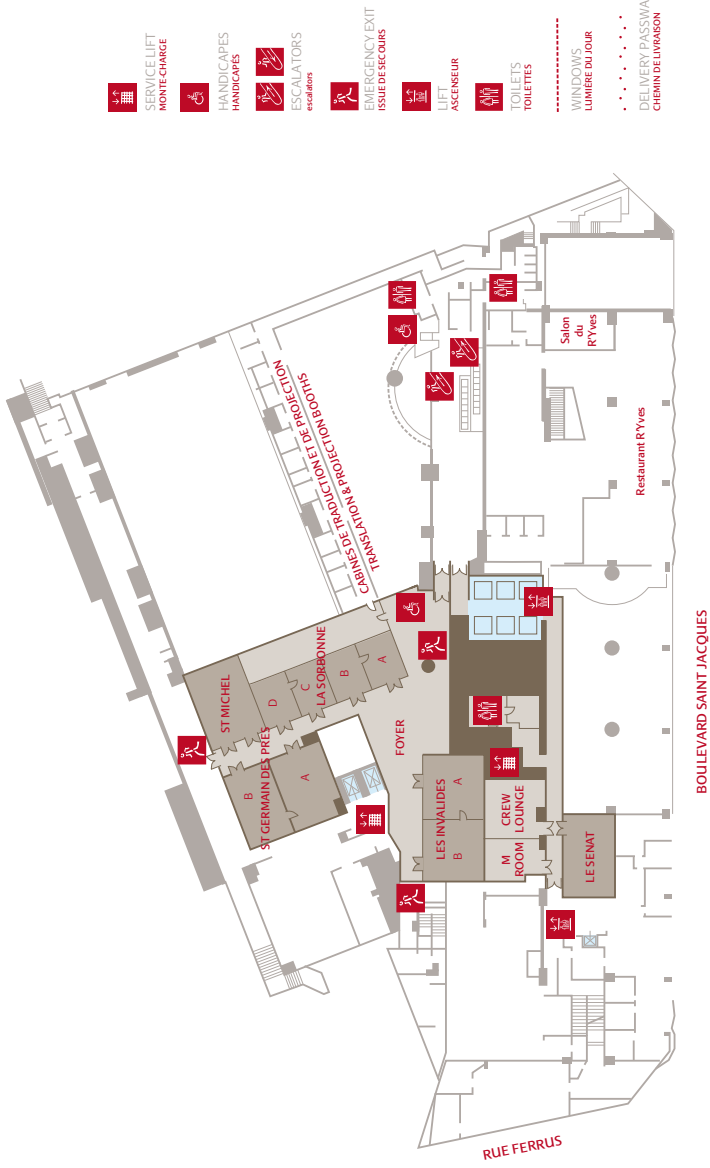
LES RIVES DE SEINE / THE BANKS OF THE RIVER SEINE

NIVEAU 0 / LEVEL 0



LES QUARTIERS RIVE GAUCHE / THE 'LEFT BANK' AREAS

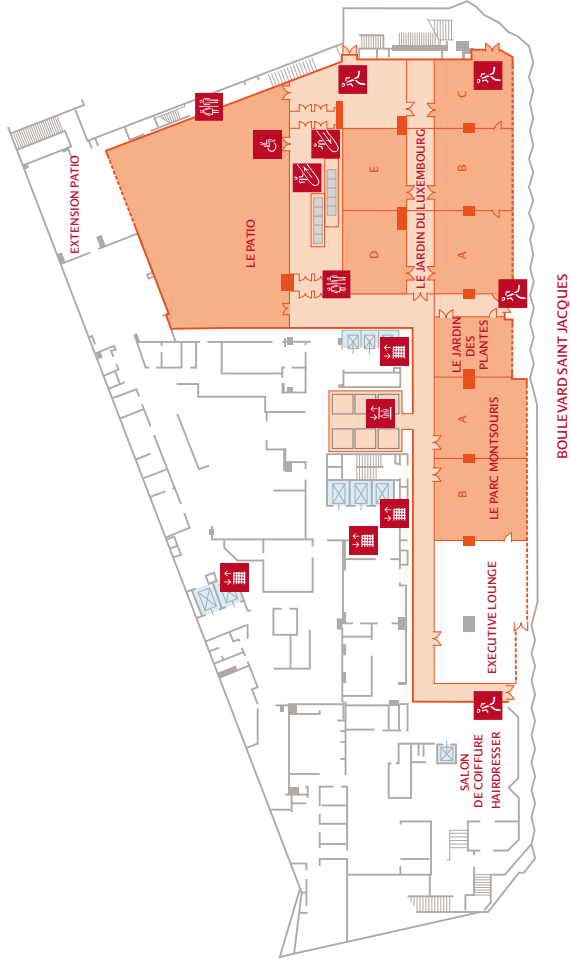
NIVEAU 2 / LEVEL 2



LES JARDINS/PARISIAN GARDENS

NIVEAU 3 / LEVEL 3

-  SERVICE LIFT
MONTE-CHARGE
-  HANDICAPES
HANDICAPES
-  ESCALATORS
Escaliers
-  EMERGENCY EXIT
ISSUE DE SECOURS
-  LIFT
ASCENSEUR
-  TOILETS
TOILETTES
-  WINDOWS
LUMIERE DU JOUR
-  DELIVERY PASSWAY
CHEMIN DE LIVRAISON



Reception

The welcome reception will take place at the Cordeliers Campus, on Tuesday May 6 from 19.00 to 22.30.

Address

Campus des Cordeliers
21, rue de l'école de médecine, 75006 Paris

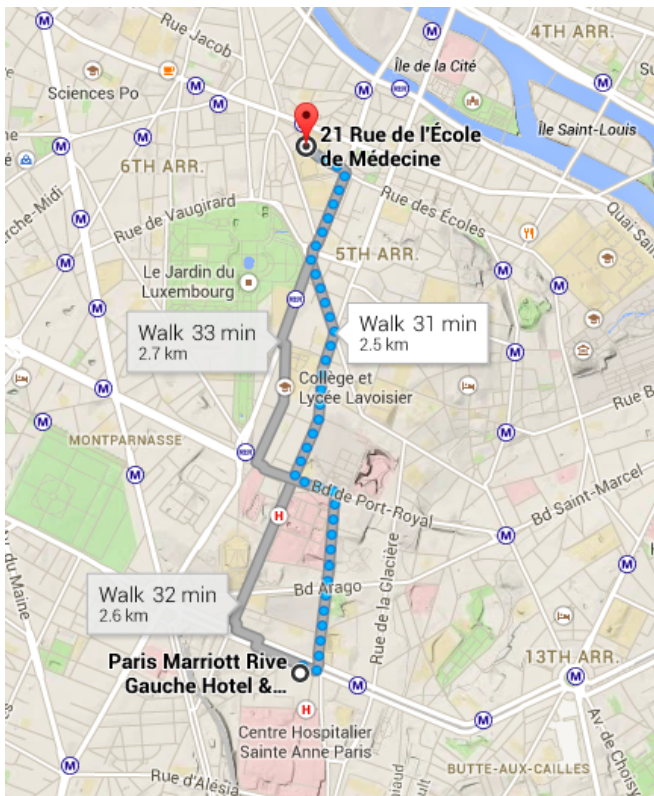
Access

Underground line 4 - Odéon station

Underground line 10 - Odéon station

Bus lines 58, 63, 70, 86, 87, 96

On foot: 30 minutes walk from Marriott hotel.



Gala dinner

The gala dinner will take place on a "bateau-mouche". The boat will travel all over Paris to reveal the heart of the City of Light. The cruise will allow you to discover or rediscover all of the magic of the banks of the River Seine, which are enhanced by the most prestigious monuments which have marked history.

Reserved for participants with tickets.



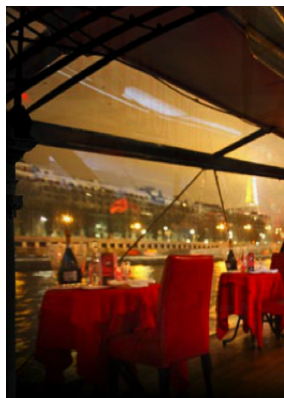
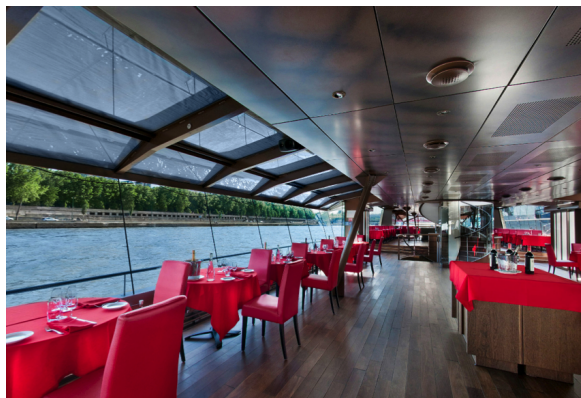
Cruise schedule

The gala dinner will take place on May 8th.

20.00: Boarding passengers aboard the Gabarre

20.30: Cruise departure

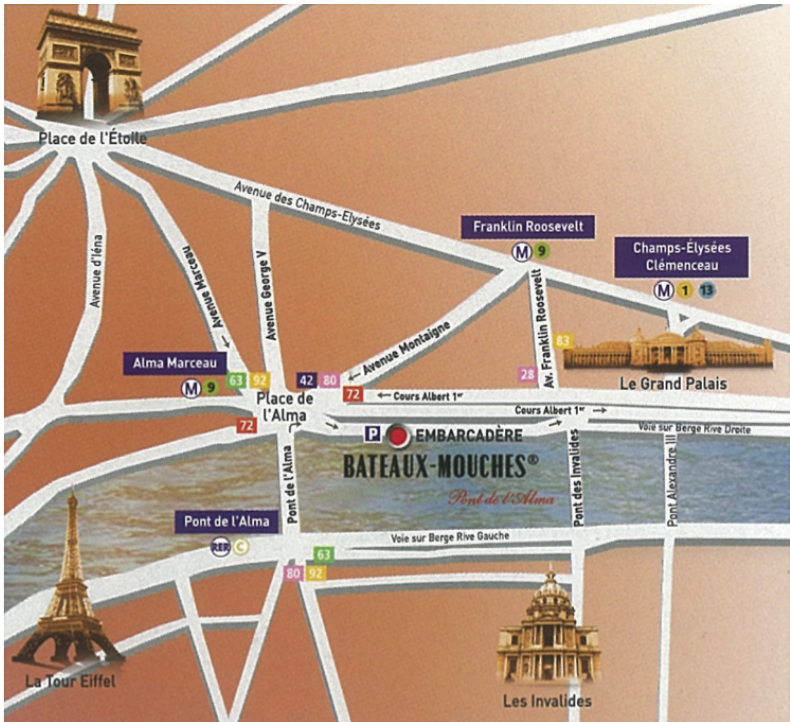
22.45: Return to dock and disembarking



Access

Compagnie des Bateaux-Mouches
Port de la Conférence
Pont de l'Alma, Rive droite
75008 PARIS

Underground line 9 - Alma-Marceau
Underground line 1 - Franklin Roosevelt
RER (regional express network line) C : Pont de l'Alma station
Free parking throughout the duration of the cruise.



General Information

Venue

AAMAS 2014 will be held at
The Paris Marriott Rive Gauche Hotel & Conference Center,
17 Boulevard Saint Jacques, Paris, 75014, France, tel. +33 1 4078 7980.

Registration and Information Desk

Registration and Information Desk operates on "The Foyer", level 0.

Opening hours:

Monday, 5 May: 08.00 - 18.00
Tuesday, 6 May: 08.00 - 18.00
Wednesday, 7 May: 08.00 - 17.30
Thursday, 8 May: 08.00 - 18.00
Friday, 9 May: 08.00 - 15.00

Badges

Please, make sure that you wear your badge at every event you attend, including lunches and Social Programs (reception, gala dinner).

Insurance

The Organizers of the Conference do not provide insurance and do not take responsibility for any loss, accident or illness that might occur during the Conference or in the course of travel to or from the meeting site. It is, therefore, the responsibility of the participants to check their coverage with their insurance provider.

Bank, Currency, Credit Cards

The unit of currency is the Euro. International credit cards are accepted at most hotels, restaurants and shops. ATM are available at 101 and 147 Boulevard Auguste Blanqui, 75013 Paris.

Internet / WiFi

Wireless internet is available to conference participants in all meeting rooms and public areas of the Marriott Rive Gauche Hotel & Conference Center, the network name is `Marriott_Guest`:

For Monday 5, and Tuesday 6, the key is: `aamas14`

For Wednesday 7, Thursday 8 and Friday 9, the key is: `aamas14b`

Voltage

The electricity supply in France is 230 V. 50 Hz. C. Overseas visitors (Canada and USA) may need an adaptor to use their personal appliances.

Useful Telephone Numbers

Can be dialed from any phone without a coin or a card.

Ambulance: 15

Fire Brigade: 18

Police: 17

Overall Emergency: 112

City transportation

Metro. A fast and ever-developing means of transport, essential to the Parisian's life, the metro is probably the best and quickest way to travel within the city. Timetable: it operates from 5:30 to 0:30. Information about the Metro can be obtained from the RATP Website: <http://www.ratp.fr/en/>

Bus. Local bus service is also available. Although slower than the Metro or the RER at certain hours of the day (depending on the traffic), the RATP buses (green) are frequent from 8:00 am to 20:00. The services are more irregular after 20:00. The Noctambus service (for night-birds) operates during the night: 10 bus routes lead from the heart of Paris.

Taxi. You can find a taxi at stations, airports and near main traffic thoroughfares in more than 470 taxi ranks. 14 900 taxis are in service in Paris. You can identify a free taxi by the light on its roof and hail it. There will already be an initial charge on the meter. It is customary to leave a tip of up to 10% of the total fare. Here are some numbers to call: Taxis bleus (3609) and Taxis G7 (3607).

Bicycles. Paris provides you with an excellent Self Service "bike hire" system available 24 hours a day, 7 days a week. Multi pick up and drop off location allows you to pick up your bike from one service point and drop off to another. An unusual and pleasant way to discover the city!

Public holiday

May 8th is a public holiday across France. Shops and many attractions, such as museums, will be closed.

Call for Participation (AAMAS'15)



INTERNATIONAL CONFERENCE ON AUTONOMOUS AGENTS & MULTIAGENT SYSTEMS 2015

4-8 May 2015
ISTANBUL CONGRESS CENTER

[<http://www.aamas2015.com>](http://www.aamas2015.com)

Important dates:

Abstract Submission: 12th of November, 2014 (23:59 UTC-12)
Full Paper Submission: 17th of November, 2014 (23:59 UTC-12)
Rebuttal Phase: 14-16th of January, 2015 (23:59 UTC-12)
Author Notification: 28th of January, 2015

About AAMAS:

AAMAS is the leading scientific conference for research in autonomous agents and multiagent systems. The AAMAS conference series was initiated in 2002 by merging three highly respected meetings: the International Conference on Multi-Agent Systems (ICMAS); the International Workshop on Agent Theories, Architectures, and Languages (ATAL); and the International Conference on Autonomous Agents (AA). The aim of the joint conference is to provide a single, high-profile, internationally respected archival forum for scientific research in the theory and practice of autonomous agents and multiagent systems.

AAMAS 2015, the fourteenth conference in the AAMAS series, seeks the submission of high-quality papers limited to 8 pages in length. Reviews will be double blind; authors must avoid including anything that can be used to identify them. Please note that submitting an abstract is required to submit a full paper. However, the abstracts will not be reviewed and full (8-page) papers must be submitted for the review process to begin. All work must be original, i.e., it must not have appeared in a conference proceedings, book, or journal and may not be under review for another archival conference. In addition to submissions in the main track, AAMAS 2015 will be soliciting papers in special tracks. The review process for the special tracks will be similar to the main track, but with programme committee members specially selected for each track. All accepted papers for the special tracks will be included in the proceedings.

AAMAS 2015 General Chairs: Gerhard Weiss (Maastricht University, NL)
Pinar Yolum (Bogazici University, Turkey)
Program Chairs: Rafael Bordini (PUCRS, Brazil)
Edith Elkind (University of Oxford, UK)

The full call for papers, along with descriptions of the special tracks and all topics of interest, can be found at:
[<http://www.aamas2015.com>](http://www.aamas2015.com)

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AAMAS 2014 main conference program

	Wednesday 7	Thursday 8	Friday 9
9h00	Norms • Verification I level 3	Social Networks II • Verification II level 3	Learning II • Challenges level 3
	CGT I • H&A I level 2	CGT II • Voting II level 2	Auctions • H&A IV • Path Planning level 2
	Voting I level 0	H&A II level 0	 level 0
10h20	Learning I level -1	Planning I level -1	 level -1
10h50	AOSE I • Logic I level 3	Dissertation level 3	Planning II • Mechanism Design II (11h40) level 3
	AGT I • Information I level 2	Emotions • Energy • ANAC level 2	Social Choice • AGT II • Learning III (11h40) level 2
	Social Networks I level 0	 level 0	ACM Talk (10h40 - ...) level 0
12h10	TagA I level -1	CGT III level -1	 level -1
Lunch	Poster session level 0	Poster session level 0	Community meeting (13h) level 0
	Demos level -1	Demos level -1	 level -1
14h40	Argumentation and Negotiation level 3	H&A III • Mechanism design I level 3	
	Teams • TagA II level 2	Logic II • TagA III level 2	
	Adversarial Search • Crowdsourcing level 0	 level 0	
16h00	Information II level -1	AOSE II level -1	
16h30	 level 0	 level 0	
17h30	Keynote: Couzins level 0	Keynote: Luck level 0	

