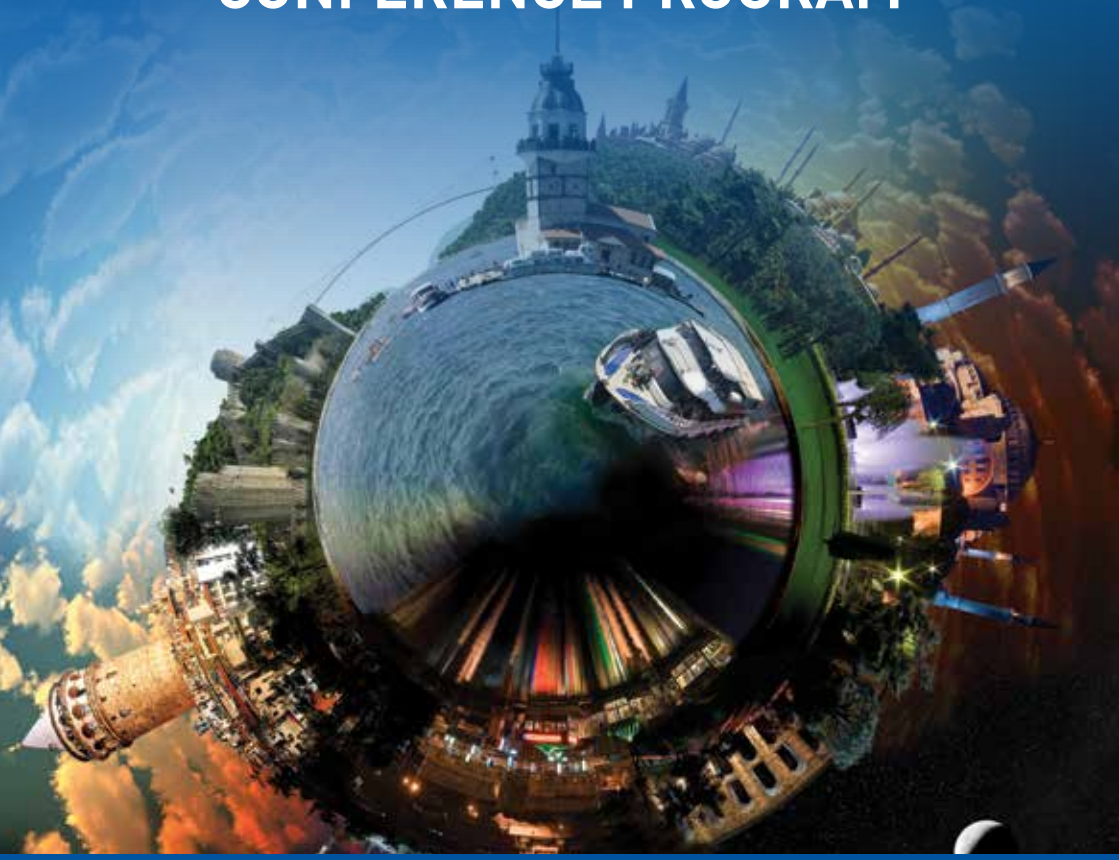
AAMAS

INTERNATIONAL CONFERENCE ON
AUTONOMOUS AGENTS & MULTIAGENT SYSTEMS

2015

4-8 May 2015
ISTANBUL CONGRESS CENTER

CONFERENCE PROGRAM



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EXHIBITIONS

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Munindar Singh
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List of Workshops

A2HC – Agents Applied in Health Care

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

CARE – Collaborative Agents – Research & Development

CAVE – Cognitive Agents for Virtual Environments

COIN – Coordination, Organisations, Institutions and Norms

CoopMAS – Cooperative Games in Multiagent Systems

COOS – Collaborative Online Organizations Workshop

EMAS – Engineering Multi-Agent Systems

ESSEM – Emotion and Sentiment in Social and Expressive Media

EXPLORE – Exploring Beyond the Worst Case in Computational Social Choice

HAIDM – Human–Agent Interaction Design and Models

IDEAS – Issues with Deployment of Emerging Agent-based Systems

LAMAS – Logical Aspects of Multi-Agent Systems

MABS – Multi-Agent-Based Simulation

MassiveMAS – Autonomous Agents and Multi-Agent Systems at Scale

MFSC – Multiagent Foundations of Social Computing

MSDM – Multiagent Sequential Decision Making Under Uncertainty

ODMMRC – On-line Decision Making in Multi-Robot Coordination

OptMAS – Optimisation in Multi-Agent Systems

WEIN – Workshop on Emergent Intelligence on Networked Agents

List of Tutorials

T1. Strategic Voting and Strategic Candidacy in Multi-Agent Systems – Maria Polukarov, Svetlana Obraztsova, Zinovi Rabinovich

T2. Complex Event Recognition in Multi-Agent Systems – Alexander Artikis, Matthias Weidlich

T3. Decentralized Multiagent Systems – Amit K. Chopra, Munindar P. Singh

T4. Norm Synthesis in Normative Multi-Agent System – Maite Lopez-Sanchez

T5. Principles of Automated Negotiation – Shaheen Fatima, Sarit Kraus, Michael Wooldridge

T6. Multi-Agent Oriented Programming – Olivier Boissier, Jomi Hübner, Alessandro Ricci, Jaime Simão Sichman

T7. Modeling and Simulation using Agents in Cell-Spaces – Gabriel A. Wainer

T8. Truth-Revealing Social Choice – Toby Walsh, Lirong Xia, Leandro Soriano Marcolino

Programme At-a-Glance

Monday 4 May 2015	
08.30 - 10.30	**Workshops:** ADMI, AMEC/TADA, ARMS, COIN, COOS, EXPLORE, HAIDM, IDEAS, LAMAS **Tutorials:** T2, T3
10.30 - 11.00	*Coffee Break*
11.00 - 13.00	**Workshops:** ADMI, AMEC/TADA, ARMS, COIN, COOS, EXPLORE, HAIDM, IDEAS, LAMAS **Tutorials:** T3, T7
13.00 - 14.00	*Lunch Break*
14.00 - 16.00	**Workshops:** ADMI, AMEC/TADA, ARMS, CARE, COIN, HAIDM, LAMAS, MFSC **Tutorials:** T1, T6
16.00 - 16.30	*Coffee Break*
16.30 - 18.30	**Workshops:** ADMI, AMEC/TADA, ARMS, CARE, COIN, HAIDM, LAMAS, MFSC **Tutorials:** T6, T8

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

Programme At-a-Glance

Tuesday 5 May 2015	
08.30 - 10.30	**Workshops:** ACAN, ACySe, ALA, CoopMAS, EMAS, ESSEM, MABS, MassiveMAS, OptMAS **Tutorials:** T5 **Doctoral Symposium**
10.30 - 11.00	*Coffee Break*
11.00 - 13.00	**Workshops:** ACAN, ACySe, ALA, CoopMAS, EMAS, ESSEM, MABS, MassiveMAS, OptMAS **Tutorials:** T5 **Doctoral Symposium**
13.00 - 14.00	*Lunch Break*
14.00 - 16.00	**Workshops:** A2HC, ACAN, ACySe, ALA, CoopMAS, EMAS, ESSEM, MABS, MassiveMAS, MSDM, OptMAS **Tutorials:** T4 **Doctoral Symposium**
16.00 - 16.30	*Coffee Break*
16.30 - 18.30	**Workshops:** A2HC, ACAN, ACySe, ALA, CoopMAS, EMAS, ESSEM, MABS, MassiveMAS, MSDM, OptMAS **Doctoral Symposium**
19.00 - 21.30	*Welcome Reception*

Please see page 14 for the detailed programme with the associated rooms.

Programme At-a-Glance

Wednesday 6 May 2015	
08.45 - 09.00	*Conference Opening*
09.00 - 10.00	*Keynote: David Harel* 
10.00 - 11.00	*Coffee, Posters*
11.00 - 12.30	Game Theory I Social Choice I Learning I Logic I Bio-inspired Approaches
12.30 - 14.30	*Lunch Break, Posters*
14.30 - 16.00	Game Theory II Cooperation Agent Societies Applications I Virtual Agents and Humans I
16.00 - 16.30	*Coffee, Demonstrations*
16.30 - 17.50	*Discussion Panel*

Please see page 17 for the detailed programme with the associated rooms.

Programme At-a-Glance

Thursday 7 May 2015	
09.00 - 10.00	*Keynote: Nina Balcan* 
10.00 - 11.00	*Coffee, Posters*
11.00 - 12.30	Game Theory III Social Choice II Learning II Applications II Robotics I
12.30 - 14.30	*Lunch Break, Posters*
14.30 - 16.00	Game Theory IV Logic II Engineering Agent-Based Systems Applications III Planning I
16.00 - 16.30	*Coffee, Demonstrations*
16.30 - 17.15	Blue Sky Ideas Hedonic Games Planning II Applications IV Robotics II
17.15 - 18.15	*IFAAMAS Victor Lesser Distinguished Dissertation Award Talk: Yair Zick* 
19.30 - 23.30	*Gala Dinner*

Please see page 31 for the detailed programme with the associated rooms.

Programme At-a-Glance

Friday 8 May 2015	
09.00 - 10.00	*ACM/SIGAI Autonomous Agents Award* *Talk: Catherine Pelachaud* 
10.00 - 11.00	*Coffee, Demonstrations, Posters*
11.00 - 12.30	Game Theory V Social Choice III Logic III Virtual Agents and Humans II Robotics III
12.30 - 14.30	*Lunch and Community Meeting*

All paper authors and demonstration presenters are welcome to present during the Friday coffee break session, subject to space availability on a first come, first served basis.

Please see page 47 for the detailed programme with the associated rooms.

Detailed Programme

Monday 4 May 2015

Monday 4 May / Workshops — Morning
08.30 – 10.30 / 11.00 – 13.00

ADMI — Agent & Data Mining Interaction
Room: B3.21

AMEC/TADA — Agent-Mediated Electronic Commerce and Trading Agent Design and Analysis
Room: B3.20

Affiliated with AMEC/TADA is the Trading Agents Competition (TAC).

ARMS — Autonomous Robots and Multirobot Systems
Room: B3.22

COIN — Coordination, Organisations, Institutions and Norms
Room: B3.61

COOS — Collaborative Online Organizations Workshop
Room: B3.85

EXPLORE — Exploring Beyond the Worst Case in Computational Social Choice
Room: B3.70

HAIDM — Human–Agent Interaction Design and Models
Room: B3.87

IDEAS — Issues with Deployment of Emerging Agent-based Systems
Room: B3.67

LAMAS — Logical Aspects of Multi-Agent Systems
Room: B3.88

Monday 4 May / Tutorials — Morning
08.30 – 10.30 / 11.00 – 13.00

T2 — Complex Event Recognition in Multi-Agent Systems (08.30 – 10.30)
Room: B3.86

T3 — Decentralized Multiagent Systems
Room: B3.60

T7 — Modeling and Simulation using Agents in Cell-Spaces (11.00 – 13.00)
Room: B3.86

Monday 4 May / Workshops — Afternoon
14.00 – 16.00 / 16.30 – 18.30

ADMI — Agent & Data Mining Interaction
Room: B3.21

AMEC/TADA — Agent-Mediated Electronic Commerce and Trading Agent Design and Analysis
Room: B3.20

ARMS — Autonomous Robots and Multirobot Systems
Room: B3.22

CARE — Collaborative Agents – Research & Development
Room: B3.70

COIN — Coordination, Organisations, Institutions and Norms
Room: B3.61

HAIDM — Human–Agent Interaction Design and Models
Room: B3.87

LAMAS — Logical Aspects of Multi-Agent Systems
Room: B3.88

MFSC — Multiagent Foundations of Social Computing
Room: B3.85

Monday 4 May / Tutorials — Afternoon
14.00 – 16.00 / 16.30 – 18.30

T1 — Strategic Voting and Strategic Candidacy in Multi-Agent Systems (14.00 – 16.00)
Room: B3.60

T6 — Multi-Agent Oriented Programming
Room: B3.86

T8 — Truth-Revealing Social Choice (16.30 – 18.30)
Room: B3.60

Tuesday 5 May 2015

Tuesday 5 May — Workshops / Morning
08.30 – 10.30 / 11.00 – 13.00

ACAN — Agent-based Complex Automated Negotiations
Room: B3.86

Affiliated with ACAN is the Automated Negotiating Agents Competition (ANAC).

ACySe — Agents and CyberSecurity
Room: B3.67

ALA — Adaptative and Learning Agents
Room: B3.22

CoopMAS — Cooperative Games in Multiagent Systems
Room: B3.88

COOS — Collaborative Online Organizations Workshop
Room: B3.85

EMAS — Engineering Multi-Agent Systems
Room: B3.20

ESSEM — Emotion and Sentiment in Social and Expressive Media
Room: B3.85

EXPLORE — Exploring Beyond the Worst Case in Computational Social Choice
Room: B3.70

IDEAS — Issues with Deployment of Emerging Agent-based Systems
Room: B3.67

MABS — Multi-Agent-Based Simulation
Room: B3.70

MassiveMAS — Autonomous Agents and Multi-Agent Systems at Scale
Room: B3.21

OptMAS — Optimisation in Multi-Agent Systems
Room: B3.87

Tuesday 5 May / Tutorials — Morning
08.30 – 10.30 / 11.00 – 13.00

T5 — Principles of Automated Negotiation
Room: B3.60

Tuesday 5 May — Workshops / Afternoon
14.00 – 16.00 / 16.30 – 18.30

A2HC — Agents Applied in Health Care
Room: B3.82

ACAN — Agent-based Complex Automated Negotiations
Room: B3.86

ACySe — Agents and CyberSecurity
Room: B3.67

ALA — Adaptative and Learning Agents
Room: B3.22

CoopMAS — Cooperative Games in Multiagent Systems
Room: B3.88

EMAS — Engineering Multi-Agent Systems
Room: B3.20

ESSEM — Emotion and Sentiment in Social and Expressive Media
Room: B3.85

MABS — Multi-Agent-Based Simulation
Room: B3.70

MassiveMAS — Autonomous Agents and Multi-Agent Systems at Scale
Room: B3.21

MSDM — Multiagent Sequential Decision Making Under Uncertainty
Room: B3.67

OptMAS — Optimisation in Multi-Agent Systems
Room: B3.87

Tuesday 5 May / Tutorials — Afternoon
14.00 – 16.00

T4 — Norm Synthesis in Normative Multi-Agent System
Room: B3.60

Tuesday 5 May — Doctoral Symposium — Full day
08.45 – 10.30 / 11.00 – 12.00 / 14.00 – 16.00 / 16.30 – 17.35

Room: B3.61

08.45 - 09.30 Welcome and introductions

09.30 - 10.30 Career interview
with Gal Kaminka and Kate Larson

10.30 - 11.00 Coffee

11.00 - 12.00 Presentations – Session I

12.00 - 14.00 Lunch

14.00 - 15.00 Panel discussion

15.00 - 16.00 Presentations – Session II

16.00 - 16.30 Coffee

16.30 - 17.35 Poster session

Tuesday 5 May — Evening
19.00 - 21.30

Welcome Reception
The welcome reception will take place at Boğaziçi University. *(Please see page 62 for details.)*

Wednesday 6 May 2015

Wednesday 6 May — Morning

08.45 – 09.00 Conference Opening
Room: Üsküdar 2

Wednesday 6 May — Keynote — A

09.00 – 10.00

On the Full Organism Challenge: Or, Can we Computerize an Elephant?
David Harel
Room: Üsküdar 2 Chair: Rafael Bordini

Wednesday 6 May — Coffee and Posters

Indicated poster and demonstrations slots are suggestions only, as there will be both posters and demos available in all breaks. Posters will also be presented during the poster sessions by authors of full length papers who have chosen to do so.

10.00 – 11.00 Poster Session 1
Room: Foyer

W-01: Ex post Efficiency of Random Assignments
Haris Aziz, Simon Mackenzie, Lirong Xia, Chun Ye

W-02: Voter Dissatisfaction in Committee Elections
Dorothea Baumeister, Sophie Dennisen

W-03: How Hard is Bribery in Party Based Elections?
Yongjie Yang, Yash Raj Shrestha, Jiong Guo

W-04: How Hard is Control in Multi-Peaked Elections: a Parameterized Study
Yongjie Yang, Jiong Guo

W-05: Profit Maximizing Prior-free Multi-unit Procurement Auctions with Capacitated Sellers
Arupratan Ray, Debmalya Mandal, Yadati Narahari

W-06: Spiteful Bidding in the Dollar Auction
Marcin Waniek, Agata Niescieruk, Tomasz Michalak, Talal Rahwan

W-07: Learning Payoffs in Large Symmetric Games
Bryce Wiedenbeck, Michael P. Wellman

W-08: Selecting Robust Strategies Based on Abstracted Game Models
Oscar Veliz, Christopher Kiekintveld

W-09: Cascade Model with Contextual Externalities and Bounded User Memory for Sponsored Search Auctions
Nicola Gatti, Marco Rocco, Paolo Serafino, Carmine Ventre

W-10: Game-Theoretic Algorithms for Optimal Network Security Hardening Using Attack Graphs
Karel Durkota, Viliam Lisy, Christofer Kiekintveld, Branislav Bosansky

W-11: New Mechanism for Reservation in Cloud Computing
Changjun Wang, Weidong Ma, Tao Qin, Feidiao Yang, Tie-Yan Liu, Xujin Chen, Xiaodong Hu

W-12: Near Optimal Strategies for Targeted Marketing in Social Networks
Ramakumar Pasumarthi, Ramasuri Narayanam, Balaraman Ravindran

W-13: Applying the Synergy Graph Model to Human Basketball
Somchaya Liemhetcharat, Yicheng Luo

W-14: Now, Later, or Both: a Closed-Form Optimal Decision for a Risk-Averse Buyer
Jasper Hoogland, Mathijs De Weerdt, Han La Poutréé

W-15: Multiagent Fair Optimization with Lorenz Dominance
Lucie Galand, Thibaut Lust

W-16: Defender Strategies In Domains Involving Frequent Adversary Interaction
Fei Fang, Peter Stone, Milind Tambe

W-17: Bounded Rationality of Restricted Turing Machines
Lijie Chen, Pingzhong Tang

W-18: Empirical Analysis of Reputation-aware Task Delegation by Humans from a Multi-agent Game
Han Yu, Han Lin, Su Fang Lim, Jun Lin, Zhiqi Shen, Chunyan Miao

W-19: Quality and Budget Aware Task Allocation for Spatial Crowdsourcing
Han Yu, Chunyan Miao, Zhiqi Shen, Cyril Leung

W-20: A Multi-phase Approach for Improving Information Diffusion in Social Networks
Swapnil Dhamal, Prabuchandran K. J., Yadati Narahari

W-21: Real-time Bidding based Vehicle Sharing
Yinlam Chow, Jia Yuan Yu

W-22: A Market for Reliability for Electricity Scheduling in Developing World Microgrids
Daniel Strawser, Wardah Inam, Brian Williams

W-23: Towards Social Power Intelligent Agents
Gonçalo Duarte Garcia Pereira, Rui Prada, Pedro A. Santos

W-24: Exploring Social Power Intelligent Behavior
Gonçalo Duarte Garcia Pereira, Rui Prada, Pedro A. Santos

W-25: Coping with Moral Emotions
Cristina Battaglino, Rossana Damiano

W-26: A Dancing Virtual Agent to Evoke Human Emotions
Deborah Richards, Jon Cedric Roxas, Ayse Bilgin, Nader Hanna

W-27: Laughing with a Virtual Agent
Florian Pecune, Maurizio Mancini, Beatrice Biancardi, Giovanna Varni, Yu Ding, Catherine Pelachaud, Gualtiero Volpe, Antonio Camurri

W-28: Discovery, Evaluation, and Exploration of Human Supplied Options and Constraints
Jesse Rosalia, Guliz Tokadli, Charles L. Isbell Jr., Andrea Thomaz, Karen M. Feigh

W-29: Heuristic Collective Learning for Efficient and Robust Emergence of Social Norms
Hao Jianye, Jun Sun, Dongping Huang, Yi Cai, Chao Yu

W-30: The Efficient Interaction of Costly Punishment and Commitment
The Anh Han, Tom Lenaerts

W-31: Towards Planning Uncertain Commitment Protocols
Felipe Meneguzzi, Pankaj R Telang, Neil Yorke-Smith

W-32: Social Contexts and Social Pragmatics
Matteo Baldoni, Cristina Baroglio, Amit K. Chopra, Munindar P. Singh

W-33: Convention Emergence and Influence in Dynamic Topologies
James Marchant, Nathan Griffiths, Matthew Leeke

W-34: Norm Establishment Constrained by Limited Resources
Samhar Mahmoud, Simon Miles, Adel Taweel, Brendan Delaney, Michael Luck

W-35: SMT-based Bounded Model Checking for Weighted Interpreted Systems and for Weighted Epistemic ECTL
Agnieszka M. Zbrzezny, Bozena Wozna-Szczesniak, Andrzej Zbrzezny

W-36: Verification of Multi-Agent Systems via SDD-based Model Checking
Alessio Lomuscio, Hugo Paquet

W-37: A Model for Collaborative Runtime Verification
Bas Testerink, Nils Bulling, Mehdi Dastani

W-38: Symbolic Model-checking for Resource-Bounded ATL
Natasha Alechina, Brian Logan, Hoang Nga Nguyen, Franco Raimondi, Leonardo Mostarda

W-39: Strategies for Truth Discovery under Resource Constraints
Anthony Etuk, Timothy J. Norman, Nir Oren, Murat Sensoy

W-40: Towards Agent-Based Simulation of Maritime Customs
F. Jordan Srour, Neil Yorke-Smith

W-41: Calibration of Multi-Agent Simulations through a Participatory Experiment
Kévin Darty, Julien Saunier, Nicolas Sabouret

W-42: Validating Business Requirements Using MAS Analysis Models
Nektarios Mitakides, Nikolaos Spanoudakis, Pavlos Delias

W-43: Emigration or Tax Evasion?
Nuno Trindade Magessi, Luis Antunes

W-44: Computer Aided Tax Evasion Policy Analysis: Directed Search using Autonomous Agents
Jacob B. Rosen, Erik Hemberg, Geoff Warner, Sanith Wijesinghe, Una-May O'Reilly

W-45: Reducing diffusion time in attitude diffusion models through agenda setting.
Kiran Lakkaraju

W-46: Multi-Objective Multiagent Credit Assignment in NSGA-II Using Difference Evaluations
Logan Yliniemi, Drew Wilson, Kagan Tumer

W-47: Multi-Scale Reward Shaping via an Off-Policy Ensemble
Anna Harutyunyan, Tim Brys, Peter Vrancx, Ann Nowe

W-48: Trajectory Sampling Value Iteration: Improved Dyna Search for MDPs
Yicheng Zhou, Quan Liu, Qiming Fu, Zongzhang Zhang

W-49: P-MARL: Prediction-Based Multi-Agent Reinforcement Learning for Non-Stationary Environments
Andrei Marinescu, Ivana Dusparic, Adam Taylor, Vinny Cahill, Siobhán Clarke

W-50: A Hybrid Evolutionary and Multiagent Reinforcement Learning Approach to Accelerate the Computation of Traffic Assignment
Ana L.C. Bazzan, Camelia Chira

W-51: A Continuous Negotiation Based Model for Traffic Regulation at an Intersection
Matthis Gaciarz, Samir Aknine, Neila Bhouri

W-52: Social Network Driven Traffic Decongestion Using Near Time Forecasting
Deepika Pathania, Kamalakar Karlapalem

W-53: Incremental Knowledge Acquisition with Selective Active Learning
Batbold Myagmarjav, Mohan Sridharan

W-54: An Efficient Knowledge Transfer Solution to a Novel SMDP Formalization of a Broker's Decision Problem
Rodrigue T. Kuate, Maria Chli, Hai H. Wang

W-55: Nonparametric Bayesian Learning of Other Agents' Policies in Interactive POMDPs
Alessandro Panella, Piotr J. Gmytrasiewicz

W-56: Improved Planning for Infinite-Horizon Interactive POMDPs using Probabilistic Inference
Xia Qu, Prashant Doshi

W-57: The "Favors Game": A Framework to Study the Emergence of Cooperation through Social Importance
Pedro Sequeira, Samuel Mascarenhas, Francisco S. Melo, Ana Paiva

W-58: Quantifier Learning: An Agent-based Coordination Model
Dariusz Kalocinski, Nina Gierasimczuk, Marcin Mostowski

W-59: Randomized Coordination Search for Scalable Multiagent Planning
N. Kemal Ure, Jonathan P. How, John Vian

W-60: A Large-Scale Study of Agents Learning from Human Reward
Guangliang Li, Hayley Hung, Shimon Whiteson

W-61: Evolution of Cooperation under Entrenchment Effects
Jayati Deshmukh, Srinath Srinivasa

W-62: Filling Knowledge Gaps in Human-Robot Interaction Using Rewritten Knowledge of Common Verbs
Dongcai Lu, Jianmin Ji, Xiaoping Chen, Jiangchuan Liu

W-63: The RoboCup 2014 SPL Drop-in Player Competition: Encouraging Teamwork without Pre-coordination
Katie Genter, Tim Laue, Peter Stone

W-64: A Heating Agent using a Personalised Thermal Comfort Model to Save Energy
Frederik Auffenberg, Sebastian Stein, Alex Rogers

W-65: Cognitive Robots Learning Failure Contexts Through Experimentation
Sertac Karapinar, Sanem Sariel

W-66: Towards Sketch Recognition by Mirroring
Mor Vered, Gal A. Kaminka

W-67: Managing Multi Robotic Agents to Avoid Congestion and Stampedes
Garima Ahuja, Kamalakar Karlapalem

Wednesday 6 May — Morning

11.00 – 12.30 Game Theory I – B1
Room: Üsküdar 2 Chair: Makoto Yokoo

Dynamic Influence Maximization Under Increasing Returns to Scale
Haifeng Zhang, Ariel D. Procaccia, Yevgeniy Vorobeychik

Decision-theoretic Clustering of Strategies
Nolan Bard, Deon Nicholas, Csaba Szepesvári, Michael Bowling

Online Monte Carlo Counterfactual Regret Minimization for Search in Imperfect Information Games
Lisý Viliam, Marc Lanctot, Michael Bowling

Endgame Solving in Large Imperfect-Information Games
Sam Ganzfried, Tuomas Sandholm

Discretization of Continuous Action Spaces in Extensive-Form Games
Christian Kroer, Tuomas Sandholm

Welfare Effects of Market Making in Continuous Double Auctions
Elaine Wah, Michael P. Wellman

11.00 – 12.30 Social Choice I – B2
Room: Beylerbeyi 2 Chair: Joerg Rothe

Large-Scale Election Campaigns: Combinatorial Shift Bribery
Robert Bredereck, Piotr Faliszewski, Rolf Niedermeier, Nimrod Talmon

Manipulation with Bounded Single-Peaked Width: A Parameterized Study
Yongjie Yang

Kernelization Complexity of Possible Winner and Coalitional Manipulation Problems in Voting
Palash Dey, Neeldhara Misra, Y. Narahari

On the Parameterized Complexity of Minimax Approval Voting
Neeldhara Misra, Arshed Nabeel, Harman Singh

Computational Aspects of Multi-Winner Approval Voting
Haris Aziz, Serge Gaspers, Joachim Gudmundsson, Simon Mackenzie, Nicholas Mattei, Toby Walsh

Complexity of the Winner Determination Problem in Judgment Aggregation: Kemeny, Slater, Tideman, Young
Ulle Endriss, Ronald de Haan

Parameterized Complexity Results for Agenda Safety in Judgment Aggregation
Ulle Endriss, Ronald de Haan, Stefan Szeider

11.00 – 12.30 Learning I – B3
Room: Üsküdar 1 Chair: Sandip Sen

Adaptive Budgeted Bandit Algorithms for Trust Development in a Supply-Chain
Sandip Sen, Anton Ridgway, Michael Ripley

Improving the Performance of Mobile Phone Crowdsourcing Applications
Erfan Davami, Gita Sukthankar

Selecting Robust Strategies in RTS Games via Concurrent Plan Augmentation
Abdelrahman Elogeel, Andrey Kolobov, Matthew Alden, Ankur Teredesai

CFQI: Fitted Q-Iteration with Complex Returns
Robert W Wright, Xingye Qiao, Steven Loscalzo, Lei Yu

Counterfactual Exploration for Improving Multiagent Learning
Mitchell K. Colby, Sepideh Kharaghani, Chris HolmesParker, Kagan Tumer

Policy Transfer using Reward Shaping
Tim Brys, Anna Harutyunyan, Matthew E. Taylor, Ann Nowé

11.00 – 12.30 Logic I – B4
Room: Beylerbeyi 1 Chair: Natasha Alechina

Verifying Multi-Agent Systems by Model Checking Three-valued Abstractions
Alessio Lomuscio, Jakub Michaliszyn

Parameterised Verification of Autonomous Mobile-Agents in Static but Unknown Environments
Sasha Rubin

Decentralized Bisimulation for Multiagent Systems
Lei Song, Yuan Feng, Lijun Zhang

Budget-Constrained Knowledge in Multiagent Systems
Pavel Naumov, Jia Tao

Module Checking of Strategic Ability
Wojciech Jamroga, Aniello Murano

On the Formal Verification of Diffusion Phenomena in Open Dynamic Agent Networks
Francesco Belardinelli, Davide Grossi

11.00 – 12.30 Bio-inspired Approaches – B5
Room: Maçka Chair: Gal Kaminka

Determining Placements of Influencing Agents in a Flock
Katie Genter, Shun Zhang, Peter Stone

Particle Field Optimization: A New Paradigm for Swarm Intelligence
Nathan Bell, John B. Oommen

Bio-inspired Practicalities: Collective Behaviour using Passive Neighbourhood Sensing
Mansoor Shaukat, Mandar Chitre

Firefly-Inspired Synchronization in Swarms of Mobile Agents
Fernando Perez-Diaz, Ruediger Zillmer, Roderich Groß

Swarm Robot Foraging with Wireless Sensor Motes
Katherine Russell, Michael Schader, Kevin Andrea, Sean Luke

Cooperative Coevolution of Partially Heterogeneous Multiagent Systems
Jorge Gomes, Pedro Mariano, Anders Lyhne Christensen

Wednesday 6 May – Lunch Break
12.30 – 13.30

Wednesday 6 May – Posters

13.30 – 14.30 Poster Session 1
Room: Foyer

Wednesday 6 May — Afternoon

14.30 – 16.00 Game Theory II – C1
Room: Üsküdar 2 Chair: Maria Polukarov

The Power of Verification for Greedy Mechanism Design
Dimitris Fotakis, Piotr Krysta, Carmine Ventre

Computational Bundling for Auctions
Christian Kroer, Tuomas Sandholm

Mechanism Design for Daily Deals
Binyi Chen, Tao Qin, Tie-Yan Liu

Selling Tomorrow's Bargains Today
Melika Abolhassani, Hossein Esfandiari, MohammadTaghi Hajiaghayi, Hamid Mahini, David Malec, Aravind Srinivasan

Social Decision with Minimal Efficiency Loss: An Automated Mechanism Design Approach
Mingyu Guo, Hong Shen, Taiki Todo, Yuko Sakurai, Makoto Yokoo

Complexity of Mechanism Design with Signaling Costs
Andrew Kephart, Vincent Conitzer

14.30 – 16.00 Cooperation – C2
Room: Beylerbeyi 2 Chair: Ed Durfee

To Ask, Sense, or Share: Ad Hoc Information Gathering
Adam Eck, Leen-Kiat Soh

A Mechanism for Smoothly Handling Human Interrupts in Team Oriented Plans
Alessandro Farinelli, Nicolò Marchi, Masoume M. Raeissi, Nathan Brooks, Paul Scerri

Bounty Hunters and Multiagent Task Allocation
Drew Wicke, David Freelan, Sean Luke

How to Form a Task-Oriented Robust Team
Tenda Okimoto, Nicolas Schwind, Maxime Clement, Tony Ribeiro, Katsumi Inoue, Pierre Marquis

Dynamic Theoretical Analysis of the Distributed Stochastic and Distributed Breakout Algorithms
Anton Ridgway, Roger Mailler

Efficient Inter-Team Task Allocation in RoboCup Rescue
Marc Pujol-Gonzalez, Jesus Cerquides, Alessandro Farinelli, Pedro Meseguer, Juan Antonio Rodriguez-Aguilar

14.30 – 16.00 Agent Societies – C3
Room: Üsküdar 1 Chair: Viviana Mascardi

A Semantic Framework for Socially Adaptive Agents
M. Birna van Riemsdijk, Louise Dennis, Michael Fisher, Koen V. Hindriks

Synthesising Liberal Normative Systems
Javier Morales, Maite López-Sánchez, Juan A. Rodríguez-Aguilar, Michael Wooldridge, Wamberto Vasconcelos

Practical Run-Time Norm Enforcement with Bounded Lookahead
Natasha Alechina, Nils Bulling, Mehdi Dastani, Brian Logan

Generalized Commitment Alignment
Amit K. Chopra, Munindar P. Singh

Monitoring Hierarchical Agent-based Simulation Traces
Benjamin Herd, Simon Miles, Peter McBurney, Michael Luck

A Framework for Institutions Governing Institutions
Thomas Christopher King, Tingting Li, Marina De Vos, Virginia Dignum, Catholijn M Jonker, Julian Padget, M. Birna van Riemsdijk

14.30 – 16.00 Applications I – C4
Room: Beylerbeyi 1 Chair: Gita Sukthankar

DIRECT: A Scalable Approach for Route Guidance in Selfish Orienteering Problems
Pradeep Varakantham, Hala Mostafa, Na Fu, Hoong Chuin Lau

Coordinating Measurements for Air Pollution Monitoring in Participatory Sensing Settings
Alexandros Zenonos, Sebastian Stein, Nicholas R. Jennings

Factored MDPs for Optimal Prosumer Decision-Making
Angelos Angelidakis, Georgios Chalkiadakis

Data-Driven Agent-Based Modeling, with Application to Rooftop Solar Adoption
Haifeng Zhang, Yevgeniy Vorobeychik, Joshua Letchford, Kiran Lakkaraju

Optimizing Efficiency of Taxi Systems: Scaling-up and Handling Arbitrary Constraints
Jiarui Gan, Bo An, Chunyan Miao

HAC-ER: A Disaster Response System based on Human-Agent Collectives
Sarvapali D Ramchurn, Trung Dong Huynh, Edwin Simpson, Yuki Ikuno, Wenchao Jiang, Joel E. Fischer, Steven Reece, Jack Flann, Feng Wu, Luc Moreau, Stephen J. Roberts, Tom Rodden, Nicholas R Jennings

14.30 – 16.00 Virtual Agents and Humans I – C5
Room: Maçka Chair: Rui Prada

Adaptive Advice in Automobile Climate Control Systems
Ariel Rosenfeld, Amos Azaria, Sarit Kraus, Claudia V. Goldman, Omer Tsimhoni

Are Aggressive Agents as Scary as Aggressive Humans?
Romy Blankendaal, Tibor Bosse, Charlotte Gerritsen, Tessa de Jong, Jeroen de Man

The Fallacy of Endogenous Discounting of Trust Recommendations
Tim Muller, Yang Liu, Jie Zhang

Composing Social Interactions via Social Games
Daniel G. Shapiro, Karen Tanenbaum, Josh McCoy, Larry LeBron, Craig Reynolds, Andrew Stern, Michael Mateas, Bill Ferguson, David Diller, Kerry Moffitt, Will Coon, Bruce Roberts

Human Behavior Models for Virtual Agents in Repeated Decision Making under Uncertainty
Ming Yin, Yu-An Sun

DJ-MC: A Reinforcement-Learning Agent for Music Playlist Recommendation
Elad Liebman, Maytal Saar-Tsechansky, Peter Stone

Wednesday 6 May — Coffee and Demonstrations

16.00 – 16.30 Demonstrations 1
Rooms: Foyer, Çamlıca

Community Evacuation Planning for Bushfires Using Agent-Based Simulation
Dhirendra Singh and Lin Padgham

Agent-Based Adaptive Mobile Computing in Games
Damian Burke and Axel Heßler

Enabling Intelligence Analysis through Agent-Support: the CISpaces Toolkit
Alice Toniolo, Hengfei Li, Robin Wentao Ouyang, Timothy Dropps, Nir Oren, Timothy Norman, Mani Srivastava, John A. Allen and Paul Sullivan

Pnyx: A Powerful and User-friendly Tool for Preference Aggregation
Felix Brandt, Guillaume Chabin and Christian Geist

Aerial Robotic Simulations for Evaluation of Multi-Agent Planning in GaTAC
Kenneth Bogert, Sina Solaimanpour and Prashant Doshi

An Empathic Robotic Tutor in a Map Application
Amol Deshmukh, Aidan Jones, Srinivasan Janarthanam, Helen Hastie, Tiago Ribeiro, Ruth Aylett, Ana Paiva, Ginevra Castellano, Mary Ellen Foster, Lee Corrigan, Fotios Papadopoulos, Eugenio Di Tullio and Pedro Sequeira

How to Use OpenEASE: An Online Knowledge Processing System for Robots and Robotics Researchers
Georg Bartels, Michael Beetz, Daniel Beßler, Moritz Tenorth and Jan Winkler

Extending NormLab to spur research on norm synthesis
Javier Morales, Iosu Mendizabal, David Sánchez Pinsach, Juan Antonio Rodriguez Aguilar, Maite Lopez-Sanchez, Michael Wooldridge and Wamberto Vasconcelos

Multi-Agent Target Tracking using Particle Filters enhanced with Context Data
Rik Claessens, Alta de Waal, Pieter de Villiers, Ate Penders, Gregor Pavlin and Karl Tuyls

Multi-stage Smart Grid Optimisation with a Multiagent System
Christopher-Eyk Hrabia, Francisco Denis Pozo Pardo, Tobias Küster and Sahin Albayrak

PViz: Visualising P2P Multi-Agent Simulations
Dimitris Giouroukis, Nikos Platis and Christos Tryfonopoulos

An Affective Agent for Predicting Composite Emotions
Jun Lin, Han Yu, Chunyan Miao and Zhiqi Shen

emigo: A Large-Scale Agent-Based Social Platform for the Web
Travis Steel, Dane Kuiper and Rym Z. Wenkstern

Interfacing Agents with an Industrial Assembly System for "Plug and Produce"
Nikolas Antzoulatos, Elkin Castro, Lavindra de Silva and Svetan Ratchev

A Demonstration of a Prototype for AUV Post-mission Debrief Generation from Metadata
Zhuoran Wang and Helen Hastie

Wednesday 6 May — Afternoon

16.30 – 17.50 **Discussion Panel — D**
Theory and Practice at AAMAS: Provoking a Balance
Room: Üsküdar 2 Chair: Milind Tambe

As the AAMAS conference has matured, we seem to have shifted from initial experiments in building individual agents or multiagent systems to rigorous theoretical foundations based on increasingly sophisticated computational models; an important outcome for our field. Indeed, we now seem to have an abundance of an exciting variety of results for these computational models; but without practical validation of these models in real world applications, it may appear unclear what these results are really saying. No doubt we have had some successes in practice, but is it fair to say that we as a field are doing enough of this validation? And what do we need for this validation, e.g., do we as a field need to develop a newer science around AAMAS algorithms in the field? And what should we do to encourage such validation in real applications? We do not want this panel to simply end with a conclusion that theory and practice are both important; of course they both are. We want to dig a little deeper here trying to understand the "how" and "why" of research that is more experimental and application-oriented.

Thursday 7 May 2015

Thursday 7 May — Morning

Thursday 7 May — Keynote — F

09.00 – 10.00

Learning Submodular Functions with Applications to Multi-Agent Systems
Nina Balcan
Room: Üsküdar 2 Chair: Edith Elkind

Thursday 7 May — Coffee and Posters

Indicated poster and demonstrations slots are suggestions only, as there will be both posters and demos available in all breaks. Posters will also be presented during the poster sessions by authors of full length papers who have chosen to do so.

10.00 – 11.00 Poster Session 2
Room: Foyer

T-01: Beyond Plurality: Truth-Bias in Binary Scoring Rules
Svetlana Obraztsova, Omer Lev, Evangelos Markakis, Zinovi Rabinovich, Jeffrey S Rosenschein

T-02: Controlling Elections by Replacing Candidates or Votes
Andrea Loreggia, Nina Narodytska, Francesca Rossi, K. Brent Venable, Toby Walsh

T-03: Voting with Social Influence: Using Arguments to Uncover Ground Truth
Alan Tsang, John A. Doucette, Hadi Hosseini

T-04: Probabilistic Copeland Tournaments
Sam Saarinen, Judy Goldsmith, Craig Tovey

T-05: Competitive Influence in Social Networks: Convergence, Submodularity, and Competition Effects
Aris Anagnostopoulos, Diodato Ferraioli, Stefano Leonardi

T-06: Parametric Mechanism Design via Quantifier Elimination
Atsushi Iwasaki, Etsushi Fujita, Taiki Todo, Hidenao Iwane, Hirokazu Anai, Mingyu Guo, Makoto Yokoo

T-07: Paving the way for Large-Scale Combinatorial Auctions
Francisco Cruz-Mencia, Jesus Cerquides, Antonio Espinosa, Juan Carlos Moure, Juan Antonio Rodriguez-Aguilar

T-08: Computing Quantal Response Equilibrium for Sponsored Search Auctions
Jiang Rong, Tao Qin, Bo An

T-09: Strategy Effectiveness of Game-Theoretical Solution Concepts in Extensive-Form General-Sum Games
Jirí Cermák, Branislav Bošanský, Nicola Gatti

T-10: An Optimal Bidimensional Multi-Armed Bandit Auction for Multi-unit Procurement
Satyanath Bhat, Shweta Jain, Sujit Gujar, Yadati Narahari

T-11: Competitive Pricing for Cloud Computing in an Evolutionary Market
Bolei Xu, Tao Qin, Guoping Qiu, Tie-Yan Liu

T-12: Playing Congestion Games with Bandit Feedbacks
Po-An Chen, Chi-Jen Lu

T-13: Mechanism Design for Resource Allocation with Applications to Ccentralized Multi-commodity Routing
Qipeng Liu, Yicheng Liu, Pingzhong Tang

T-14: Computing Pareto Optimal Agreements in Multi-issue Negotiation for Service Composition
Claudia Di Napoli, Dario Di Nocera, Silvia Rossi

T-15: Improving Fairness in Nonwasteful Matching with Hierarchical Regional Minimum Quotas
Masahiro Goto, Ryoji Kurata, Naoto Hamada, Atsushi Iwasaki, Makoto Yokoo

T-16: New Winning Strategies for the Iterated Prisoner's Dilemma
Philippe Mathieu, Jean-Paul Delahaye

T-17: Bidding in Non-Stationary Energy Markets
Pablo Hernandez-Leal, Matthew E. Taylor, Enrique Munoz de Cote, L. Enrique Sucar

T-18: Multi-Agent Task Assignment for Mobile Crowdsourcing under Trajectory Uncertainties
Cen Chen, Shih-Fen Cheng, Archan Misra, Hoong Chuin Lau

T-19: Crowdfunding Investment for Renewable Energy
Ronghuo Zheng, Ying Xu, Nilanjan Chakraborty, Katia Sycara

T-20: When Opinion Request Meets Majority Search: Avoiding Fraud in On-line Review Systems
Roberto Centeno, Ramón Hermoso

T-21: Trusted Mediator Agents to Better Manage Complex and Competitive Supply Chains
Moath Jarrah, Jie Zhang

T-22: A Computational Model of Trust Based on Message Content and Source
Célia da Costa Pereira, Andrea G. B. Tettamanzi, Serena Villata

T-23: MAP: A Computational Model for Adaptive Persuasion
Yilin Kang, Ah-Hwee Tan

T-24: "I like this painting too": When an ECA shares appreciations to engage users
Sabrina Campano, Chloé Clavel, Catherine Pelachaud

T-25: Modelling of Personality in Agents: From Psychology to Logical Formalisation and Implementation
Sebastian Ahrndt, Johannes Fähndrich, Marco Lützenberger, Sahin Albayrak

T-26: Influencing the Learning Experience Through Affective Agent Feedback in a Real-World Treasure Hunt
Mary Ellen Foster, Amol Deshmukh, Srinivasan Janarthanam, Mei Yii Lim, Helen Hastie, Ruth Aylett

T-27: The Impact of Virtual Agent Personality on a Shared Mental Model with Humans during Collaboration
Nader Hanna, Deborah Richards

T-28: The Evolutionary Perks of Being Irrational
Fernando P. Santos, Francisco C. Santos, Ana Paiva

T-29: Towards Probabilistic Decision Making on Human Activities modeled with Business Process Diagrams
Hector G. Ceballos, Victor Flores-Solorio, Juan P. Garcia-Vazquez

T-30: Accounting for Circumstances in Reputation Assessment
Simon Miles, Nathan Griffiths

T-31: The Cost of Interference in Evolving Multiagent Systems
The Anh Han, Long Tran-Thanh, Nicholas R. Jennings

T-32: Modeling Tipping Point Theory using Normative Multi-agent Systems
Rahmatollah Beheshti, Gita Sukthankar

T-33: A Bayesian Approach to Norm Identification
Stephen Cranefield, Felipe Meneguzzi, Nir Oren, Bastin Tony Roy Savarimuthu

T-34: A Multidimensional Environment Implementation for Enhancing Agent Interaction
Stéohane Galland, Flavien Balba, Nicolas Gaud, Sebastian Rodriguez, Gauthier Picard, Olivier Boissier

T-35: Programming with Commitments and Goals in JaCaMo+
Matteo Baldoni, Cristina Baroglio, Federico Capuzzimati, Roberto Micalizio

T-36: Estimating the Progress of Maintenance Goals
John Thangarajah, James Harland, Neil Yorke-Smith

T-37: An Overview of a Mapping from Processes to Agents
Tobias Küster, Marco Lützenberger

T-38: Global Approximations for Principal Agent Theory
Federico Cerutti, Nir Oren, Christopher Burnett

T-39: Synchronous Games in the Situation Calculus
Giuseppe De Giacomo, Yves Lesperance, Adrian R. Pearce

T-40: Private Revision in a Multi-Agent Setting
Thomas Caridroit, Sébastien Konieczny, Tiago de Lima, Pierre Marquis

T-41: Elements of Epistemic Crypto Logic
Jan van Eijck, Malvin Gattinger

T-42: Verifying Normative System Specification containing Collective Imperatives and Deadlines
Luca Gasparini, Timothy J. Norman, Martin J. Kollingbaum, Liang Chen, John-Jules Ch. Meyer

T-43: Towards Consistency-Based Reliability Assessment
Laurence Cholvy, Laurent Perrussel, William Raynaut, Jean-Marc Thévenin

T-44: A Game for Studying Maintenance Alerts' Effectiveness
Avraham Shvartzon, Amos Azaria, Sarit Kraus, Claudia V. Goldman, Joachim Meyer, Omer Tsimhoni

T-45: Survival of the Chartist: An Evolutionary Agent-Based Analysis of Stock Market Trading
Daan Bloembergen, Daniel Hennes, Simon Parsons, Karl Tuyls

T-46: An Agent-based Simulation System for Dynamic Project Scheduling and Online Disruption Resolving
Hui Xi, Meng Sha, Chi Keong Goh, Partha Sarathi Dutta, Jie Zhang

T-47: A Gillespie-based Computational Model for Integrating Event-driven and Multi-Agent Based Simulation
Sara Montagna, Andrea Omicini, Danilo Pianini

T-48: Exploiting Objects as Artifacts in Multi-Agent Based Social Simulations
Felicitas Mokom, Ziad Kobti

T-49: Approximating Difference Evaluations with Local Information
Mitchell K. Colby, William Curran, Kagan Tumer

T-50: A Replicator Dynamics Analysis of Difference Evaluation Functions
Mitchell K. Colby, Kagan Tumer

T-51: Influence-Optimistic Local Values for Multiagent Planning
Frans A. Oliehoek, Matthijs T. J. Spaan, Stefan J. Witwicki

T-52: Reinforcement Learning for Nash Equilibrium Generation
David Cittern, Abbas Edalat

T-53: Behaviour Analysis of Mixed Game-Theoretic Learning Algorithms
Michalis Smyrnakis, Hongyang Qu, Sandor Veres

T-54: Using KL Divergence for Credibility Assessment
Thibaut Vallée, Grégory Bonnet

T-55: Multi-Variable Agents Decomposition for DCOPs to Exploit Multi-Level Parallelism
Ferdinando Fioretto, William Yeoh, Enrico Pontelli

T-56: Large Neighborhood Search with Quality Guarantees for Distributed Constraint Optimization Problems
Ferdinando Fioretto, Federico Campeotto, Agostino Dovier, Enrico Pontelli, William Yeoh

T-57: Improving Value Function Approximation in Factored POMDPs by Exploiting Model Structure
Tiago S. Veiga, Matthijs T. J. Spaan, Pedro U. Lima

T-58: Multi-Robot Inverse Reinforcement Learning Under Occlusion with State Transition Estimation
Kenneth Bogert, Prashant Doshi

T-59: A Novel Abstraction Framework for Online Planning
Ankit Anand, Aditya Grover, Mausam, Parag Singla

T-60: Considering Agent and Task Openness in Ad Hoc Team Formation
Bin Chen, Xi Chen, Anish Timsina, Leen-Kiat Soh

T-61: Towards Completely Decentralized Mustering for StarCraft
Zachary Suffern, Craig Tovey, Sven Koenig

T-62: PrivHab: a Multiagent Secure Georouting Protocol for Podcast Distribution on Disconnected Areas
Adrianán Sánchez-Carmona, Sergi Robles, Carlos Borrego

T-63: On Structure-Based Inconsistency Measures and Their Computations via Closed Set Packing
Said Jabbour, Yue Ma, Badran Raddaoui, Lakhdar Sais, Yakoub Salhi

T-64: Social Insect-Inspired Multi-Robot Coverage
Bastian Broecker, Ipek Caliskanelli, Karl Tuyls, Elizabeth Sklar, Daniel Hennes

T-65: Some Performance Bounds of Strategies for Graph Exploration
Alessandro Riva, Alberto Quattrini Li, Francesco Amigoni

T-66: On Task Recognition and Generalization in Long-Term Robot Teaching
Guglielmo Gemignani, Steven D Klee, Manuela Veloso, Daniele Nardi

T-67: Generalized Plan Design For Autonomous Mobile Manipulation in Open Environments
Jan Oliver Winkler, Michael Beetz

Thursday 7 May — Morning

11.00 – 12.30 Game Theory III – G1
Room: Üsküdar 2 Chair: Kate Larson

Approximately Strategy-proof Mechanisms for (Constrained) Facility Location
Xin Sui, Craig Boutilier

Facility Location Games with Dual Preference
Shaokun Zou, Minming Li

The Power of Swap Deals in Distributed Resource Allocation
Anastasia Damamme, Aurélie Beynier, Yann Chevaleyre, Nicolas Maudet

Strategic Free Information Disclosure for Search-Based Information Platforms
Shani Alkoby, David Sarne, Sanmay Das

Information Disclosure as a Means to Security
Zinovi Rabinovich, Albert Xin Jiang, Manish Jain, Haifeng Xu

Electric Boolean Games
Paul Harrenstein, Paolo Turrini, Michael Wooldridge

11.00 – 12.30 Social Choice II – G2
Room: Beylerbeyi 2 Chair: Ulle Endriss

A Study of Human Behavior in Online Voting
Maor Tal, Reshef Meir, Ya'akov (Kobi) Gal

Aggregating Partial Rankings with Applications to Peer Grading in Massive Online Open Courses
Ioannis Caragiannis, George A. Krimpas, Alexandros A. Voudouris

Computing Manipulations of Ranking Systems
Ethan Gertler, Erika Mackin, Malik Magdon-Ismail, Lirong Xia, Yuan Yi

Every Team Deserves a Second Chance: Identifying when Things Go Wrong
Vaishnavh Nagarajan, Leandro Soriano Marcolino, Milind Tambe

Adapting the Social Network to Affect Elections
Sigal Sina, Noam Hazon, Avinatan Hassidim, Sarit Kraus

Multiple Referenda and Multiwinner Elections Using Hamming Distances: Complexity and Manipulability
Georgios Amanatidis, Nathanaël Barrot, Jérôme Lang, Evangelos Markakis, Bernard Ries

11.00 – 12.30 Learning II – G3
Room: Üsküdar 1 Chair: Karl Tuyls

Learning Inter-Task Transferability in the Absence of Target Task Samples
Jivko Sinapov, Sanmit Narvekar, Matteo Leonetti, Peter Stone

R-HybrID: Evolution of Agent Controllers with a Hybrisation of Indirect and Direct Encodings
Fernando Silva, Luis Correia, Anders Lyhne Christensen

Learning By Observation Using Qualitative Spatial Relations
Jay Young, Nick Hawes

Learning in Multi-agent Systems with Sparse Interactions by Knowledge Transfer and Game Abstraction
Yujing Hu, Yang Gao, Bo An

Knowledge Revision for Reinforcement Learning with Abstract MDPs
Kyriakos Efthymiadis, Daniel Kudenko

Monte Carlo Hierarchical Model Learning
Jacob Menashe, Peter Stone

11.00 – 12.30 Applications II – G4
Room: Beylerbeyi 1 Chair: Michael Winikoff

Supporting Reasoning with Different Types of Evidence in Intelligence Analysis
Alice Toniolo, Timothy J. Norman, Anthony Etuk, Federico Cerutti, Robin Wentao Ouyang, Mani Srivastava, Nir Oren, Timothy Dropps, John A. Allen, Paul Sullivan

Using Information Theory to Improve the Robustness of Trust Systems
Dongxia Wang, Tim Muller, Athirai A. Irissappane, Jie Zhang, Yang Liu

Learning Behavior Patterns from Video: A Data-driven Framework for Agent-based Crowd Modeling
Jinghui Zhong, Wentong Cai, Linbo Luo, Haiyan Yin

Signaled Queueing
Laura Brink, Robert Shorten, Jia Yuan Yu

Modeling the Management of Water Resources Systems Using Multi-Objective DCOPs
Francesco Amigoni, Andrea Castelletti, Matteo Giuliani

A Multi-Agent Platform for Automating the Collection of Patient-Provided Clinical Feedback
Zina M. Ibrahim, Lorena Fernandez de la Cruz, Argyris Stringaris, Robert Goodman, Michael Luck, Richard J.B. Dobson

11.00 – 12.30 Robotics I – G5
Room: Maçka Chair: Paul Scerri

Real-time Opinion Aggregation Methods for Crowd Robotics
Elliot Salisbury, Sebastian Stein, Sarvapali Ramchurn

Teaching Robots Parametrized Executable Plans Through Spoken Interaction
Guglielmo Gemignani, Emanuele Bastianelli, Daniele Nardi

Frontier-Based RTDP: A New Approach to Solving the Robotic Adversarial Coverage Problem
Roi Yehoshua, Noa Agmon, Gal A Kaminka

Pervasive 'Calm' Perception for Autonomous Robotic Agents
Thiemo Wiedemeyer, Ferenc Bálint-Benczédi, Michael Beetz

Effective Approximations for Multi-Robot Coordination in Spatially Distributed Tasks
Daniel Claes, Philipp Robbel, Frans A. Oliehoek, Karl Tuyls, Daniel Hennes, Wiebe van der Hoek

Adversarial Modeling in the Robotic Coverage Problem
Roi Yehoshua, Noa Agmon

Thursday 7 May – Lunch Break
12.30 – 13.30

Thursday 7 May – Posters

13.30 – 14.30 Poster Session 2
Room: Foyer

Thursday 7 May — Afternoon

14.30 – 16.00 Game Theory IV – H1
Room: Üsküdar 2 Chair: Sanmay Das

Waste Makes Haste: Bounded Time Protocols for Envy-Free Cake Cutting with Free Disposal
Erel Segal-Halevi, Avinatan Hassidim, Yonatan Aumann

Fairness and False-Name Manipulations in Randomized Cake Cutting
Shunsuke Tsuruta, Masaaki Oka, Taiki Todo, Yuko Sakurai, Makoto Yokoo

Bitcoin Mining Pools: A Cooperative Game Theoretic Analysis
Yoad Lewenberg, Yoram Bachrach, Yonatan Sompolinsky, Aviv Zohar, Jeffrey S Rosenschein

On Sex, Evolution, and the Multiplicative Weights Update Algorithm
Reshef Meir, David Parkes

On the Susceptibility of the Deferred Acceptance Algorithm
Haris Aziz, Hans Georg Seedig, Jana Karina von Wedel

Hierarchical Abstraction, Distributed Equilibrium Computation, and Post-Processing, with Application to a Champion No-Limit Texas Hold'em Agent
Noam Brown, Sam Ganzfried, Tuomas Sandholm

14.30 – 16.00 Logic II – H2
Room: Beylerbeyi 2 Chair: Michael Wooldridge

A Dialogue Game for Recommendation with Adaptive Preference Models
Christophe Labreuche, Nicolas Maudet, Wassila Ouerdane, Simon Parsons

Reasoning with PCP-nets in a Multi-Agent Context
Cristina Cornelio, Umberto Grandi, Judy Goldsmith, Nicholas Mattei, Francesca Rossi, K. Brent Venable

A Logic for Collective Choice
Guifei Jiang, Dongmo Zhang, Laurent Perrussel, Heng Zhang

Propositional Opinion Diffusion
Umberto Grandi, Emiliano Lorini, Laurent Perrussel

Belief Merging versus Judgment Aggregation
Patricia Everaere, Sébastien Konieczny, Pierre Marquis

A Syntactic Proof of Arrow's Theorem in a Modal Logic of Social Choice Functions
Giovanni Ciná, Ulle Endriss

14.30 – 16.00 Engineering Agent-Based Systems – H3
Room: Üsküdar 1 Chair: Brian Logan

Global Protocols as First Class Entities for Self-Adaptive Agents
Davide Ancona, Daniela Briola, Angelo Ferrando, Viviana Mascardi

A Self-Organizing Virtual Environment for Agent-Based Simulations
Mohammad Al-Zinati, Rym Wenkstern

An Approach to Quantify Workload in a System of Agents
Richard Stocker, Neha Rungta, Eric Mercer, Franco Raimondi, Jon Holbrook, Colleen Cardoza, Michael Goodrich

Agent Oriented Modelling of Tactical Decision Making
Rick Evertsz, John Thangarajah, Nitin Yadav, Thanh Ly

Metrics for Evaluating Modularity and Extensibility in HMAS Systems
Massimo Cossentino, Carmelo Lodato, Salvatore Lopes, Patrizia Ribino, Valeria Palermo

Early Detection of Design Faults Relative to Requirement Specifications in Agent-Based Models
Yoosef Abushark, John Thangarajah, Tim Miller, James Harland, Michael Winikoff

14.30 – 16.00 Applications III – H4
Room: Beylerbeyi 1 Chair: Pradeep Varakantham

Incentive Schemes for Participatory Sensing
Goran Radanovic, Boi Faltings

Truthful Interval Cover Mechanisms for Crowdsourcing Applications
Pankaj Dayama, Balakrishnan Narayanaswamy, Dinesh Garg, Y Narahari

A Truthful Budget Feasible Multi-Armed Bandit Mechanism for Crowdsourcing Time Critical Tasks
Arpita Biswas, Shweta Jain, Debmalya Mandal, Y. Narahari

TAC AdX'14: Autonomous Agents for Realtime Ad Exchange
Bingyang Tao, Fan Wu, Guihai Chen

Predicting Bundles of Spatial Locations from Learning Revealed Preference Data
Truc Viet Le, Siyuan Liu, Hoong Chuin Lau, Ramayya Krishnan

A Multiagent Approach to Variable-Rate Electric Vehicle Charging Coordination
Konstantina Valogianni, Wolfgang Ketter, John Collins

14.30 – 16.00 Planning I – H5
Room: Maçka Chair: Felipe Meneguzzi

Optimisation and Relaxation for Multiagent Planning in the Situation Calculus
Toby O. Davies, Adrian R. Pearce, Peter J. Stuckey, Harald Søndergaard

Capability Models and Their Applications in Planning
Yu Zhang, Sarath Sreedharan, Subbarao Kambhampati

Iterative Online Planning in Multiagent Settings with Limited Model Spaces and PAC Guarantees
Yingke Chen, Prashant Doshi, Yifeng Zeng

Managing Dynamic Multi-Agent Simple Temporal Network
Guillaume Casanova, Cédric Pralet, Charles Lesire

The Dependence of Effective Planning Horizon on Model Accuracy
Nan Jiang, Alex Kulesza, Satinder Singh, Richard Lewis

Planning for Crowdsourcing Hierarchical Tasks
Ece Kamar, Eric Horvitz

Thursday 7 May — Coffee and Demonstrations

16.00 – 16.30 Demonstrations 2
Rooms: Foyer, Çamlıca

Every Team Deserves a Second Chance: An Interactive 9x9 Go Experience
Leandro Soriano Marcolino, Vaishnavh Nagarajan and Milind Tambe

Learning, Predicting and Planning Against Crime: Demonstration based on real urban crime data
Chao Zhang, Manish Jain, Ripple Goyal, Arunesh Sinha and Milind Tambe

Shaping Mario with Human Advice
Anna Harutyunyan, Tim Brys, Peter Vrancx and Ann Nowé

SCANERGY: A Scalable and Modular System for Energy Trading Between Prosumers
Mihail Mihaylov, Sergio Jurado, Narcis Avellana, Ivan Razo-Zapata, Kristof Van Moffaert, Adrian Cañadas, Leticia Arco, Isel Grau and Ann Nowe

HAC-ER: A disaster response system based on Human-Agent Collectives
Sarvapali Ramchurn, Trung Dong Huynh, Edwin Simpson, Yuki Ikuno, Wenchao Jiang, Feng Wu, Joel Fischer, Steven Reece, Stephen Roberts, Tom Rodden, Luc Moreau and Nick Jennings

Open Game Tournaments in STARLITE
Jack Hopkins, Ozgur Kafali and Kostas Stathis

Using Agent-Based Tactics Models to Control Virtual Actors in VBS3
Rick Evertsz, John Thangarajah and Nik Ambukovski

A tool for defining agent protocols in HAPN
Nitin Yadav, Lin Padgham and Michael Winikoff

SE-Star: A Large-Scale Human Behavior Simulation for Planning, Decision-Making and Training
Laurent Navarro, Fabien Flacher and Christophe Meyer

A Knowledge-Based Approach to Robotic Perception using Unstructured Information Management
Ferenc Balint-Benczedi, Thiemo Wiedemeyer, Moritz Tenorth, Daniel Bessler and Michael Beetz

PrivHab: a Multiagent Secure Georouting Protocol for Podcast Distribution on Disconnected Areas
Adrián Sánchez-Carmona, Sergi Robles and Carlos Borrego

A Framework for Developing Multi-Agent Systems in Ambient Intelligence Scenarios
Pablo Campillo-Sanchez and Jorge Gomez-Sanz

Social Theatre: Showcasing Social Power Aware Agents
Gonçalo Pereira, Rui Prada and Pedro A. Santos

fNIRS-based BCI for Robot Control
Kirill I. Tumanov, Rainer Goebel, Rico Möckel, Bettina Sorger and Gerhard Weiss

ScienceAtHome-platform for online games with a purpose
Pinja Haikka and Jacob Sherson

Thursday 7 May — Afternoon

16.30 – 17.15 Blue Sky Ideas – I1
Room: Üsküdar 2 Chair: Jeff Rosenschein

Creating Socially Adaptive Electronic Partners
M. Birna van Riemsdijk, Catholijn M. Jonker, Victor Lesser

Cybersecurity as an Application Domain for Multiagent Systems
Munindar P Singh

Crowdsourcing Societal Tradeoffs
Vince Conitzer, Markus Brill, Rupert Freeman

16.30 – 17.15 Hedonic Games – I2
Room: Beylerbeyi 2 Chair: Haris Aziz

Fractional Hedonic Games: Individual and Group Stability
Florian Brandl, Felix Brandt, Martin Strobel

Representing and Solving Hedonic Games with Ordinal Preferences and Thresholds
Jérôme Lang, Anja Rey, Jörg Rothe, Hilmar Schadrack, Lena Schend

On the Price of Stability of Fractional Hedonic Games
Vittorio Bilò, Angelo Fanelli, Michele Flammini, Gianpiero Monaco, Luca Moscardelli

16.30 – 17.15 Planning II – I3
Room: Üsküdar 1 Chair: Matthijs Spaan

Incremental Policy Iteration with Guaranteed Escape from Local Optima in POMDP Planning
Marek Grzes, Pascal Poupart

Predictive State Representations with State Space Partitioning
Yunlong Liu, Yun Tang, Yifeng Zeng

Effective Influence Abstractions for Organizational Design
Jason Sleight, Edmund H. Durfee

16.30 – 17.15 Applications IV – I4
Room: Beylerbeyi 1 Chair: Amal El Fallah Seghrouchni

Near-Optimal Decentralized Power Supply Restoration in Smart Grids
Pritee Agrawal, Akshat Kumar, Pradeep Varakantham

Designing a Marketplace for the Trading and Distribution of Energy in the Smart Grid
Jesus Cerquides, Gauthier Picard, Juan A. Rodriguez-Aguilar

AdaHeat: A General Adaptive Intelligent Agent for Domestic Heating Control
Athanasios Aris Panagopoulos, Muddasser Alam, Alex Rogers, Nicholas Robert Jennings

16.30 – 17.15 Robotics II – I5
Room: Maçka Chair: Noa Agmon

Efficient Decision-Making in a Self-Organizing Robot Swarm: On the Speed Versus Accuracy Trade-Off
Gabriele Valentini, Heiko Hamann, Marco Dorigo

Pipelined Consensus for Global State Estimation in Multi-Agent Systems
Golnaz Habibi, Zachary Kingston, Zijian Wang, Mac Schwager, James McLurkin

Continuous Foraging and Information Gathering in a Multi-Agent Team
Somchaya Liemhetcharat, Rui Yan, Keng Peng Tee

Thursday 7 May — Afternoon

17.15 – 18.15 **2014 IFAAMAS Victor Lesser Distinguished Dissertation Award Talk — J**
Room: Üsküdar 2 Chair: Michael Winikoff

Arbitration, Fairness and Stability: Revenue Division in Collaborative Settings
Yair Zick

Thursday 7 May — Evening

19.30 – 23.30

Gala Dinner
The gala dinner will take place at Portaxe Restaurant. Reserved for participants with tickets. (Please see page 63 for details.)

Friday 8 May 2015

Friday 8 May — Morning

Friday 8 May — Keynote — K

09.00 – 10.00

Greta, an Interactive Expressive Embodied Conversational Agent
Catherine Pelachaud
Room: Üsküdar 2 Chair: Milind Tambe

Friday 8 May — Coffee, Posters, and Demonstrations

10.00 – 11.00 Poster Session
Rooms: Foyer, Çamlıca

All paper authors and demonstration presenters are welcome to present during the Friday coffee break session, subject to space availability on a first come, first served basis.

Friday 8 May — Morning

11.00 – 12.30 Game Theory V – L1
Room: Üsküdar 2 Chair: Bo An

Robust Strategy against Unknown Risk-averse Attackers in Security Games
Yundi Qian, William Haskell, Milind Tambe

Keeping Pace with Criminals: Designing Patrol Allocation Against Adaptive Opportunistic Criminals
Chao Zhang, Arunesh Sinha, Milind Tambe

It Pays to Pay in Bi-Matrix Games – a Rational Explanation for Bribery
Anshul Gupta, Sven Schewe

Two-Timescale Algorithms for Learning Nash Equilibria in General-Sum Stochastic Games
H.L. Prasad, Prashanth L.A., Shalabh Bhatnagar

A Game of Thrones
Debarun Kar, Fei Fang, Francesco Maria Delle Fave, Nicole Sintov, Milind Tambe

Stackelberg Games for Vaccine Design
Swetasudha Panda, Yevgeniy Vorobeychik

11.00 – 12.30 Social Choice III – L2
Room: Beylerbeyi 2 Chair: Jerome Lang

General Tiebreaking Schemes for Computational Social Choice
Rupert Freeman, Markus Brill, Vincent Conitzer

Incentives for Participation and Abstention in Probabilistic Social Choice
Florian Brandl, Felix Brandt, Johannes Hofbauer

Sample Complexity for Winner Prediction in Elections
Palash Dey, Arnab Bhattacharyya

How Credible is the Prediction of a Party-Based Election?
Jiong Guo, Yash Raj Shrestha, Yongjie Yang

Detecting Possible Manipulators in Elections
Palash Dey, Neeldhara Misra, Y. Narahari

Manipulating the Probabilistic Serial Rule
Haris Aziz, Serge Gaspers, Simon Mackenzie, Nicholas Mattei, Nina Narodytska, Toby Walsh

11.00 – 12.30 Logic III – L3
Room: Üsküdar 1 Chair: Alessio Lomuscio

Efficient Reasoning With Consistent Proper Epistemic Knowledge Bases
Christian Muise, Tim Miller, Paolo Felli, Adrian R Pearce, Liz Sonenberg

Arbitrary Public Announcement Logic with Mental Programs
Tristan Charrier, Fran□ois Schwarzentruber

Neuro-Symbolic Agents: Boltzmann Machines and Probabilistic Abstract Argumentation with Sub-Arguments
Regis Riveret, Jeremy Pitt, Dimitrios Korkinof, Moez Draief

Agreeing to Agree: Reaching Unanimity via Preference Dynamics Based on Reliable Agents
Sujata Ghosh, Fernando R. Velázquez-Quesada

Analysis Problems for Graphical Dynamical Systems: A Unified Approach Through Graph Predicates
Daniel J. Rosenkrantz, Madhav V. Marathe, Harry B. Hunt III, S. S. Ravi, Richard E. Stearns

Argumentation-based Ranking Logics
Leila Amgoud, Jonathan Ben-Naim

11.00 – 12.30 Virtual Agents and Humans II – L4
Room: Beylerbeyi 1 Chair: Catholijn Jonker

Modeling Students Self-Studies Behaviors
Pedro Mota, Francisco Melo, Luísa Coheur

Beyond Traits: Social Context Based Personality Model
Jaroslaw Kochanowicz, Ah-Hwee Tan, Daniel Thalmann

Incorporating Global and Local Knowledge in Intentional Narrative Planning
Jonathan Teutenberg, Julie Porteous

Automated Extension of Narrative Planning Domains with Antonymic Operators
Julie Porteous, Alan Lindsay, Jonathon Read, Mark Truran, Marc Cavazza

Semi-feature Level Fusion for Bimodal Affect Regression Based on Facial and Bodily Expressions
Yang Zhang, Li Zhang

An Effective Conversation Tactic for Creating Value over Repeated Negotiations
Johnathan Mell, Gale Lucas, Jonathan Gratch

11.00 – 12.30 Robotics III – L5
Room: Maçka Chair: Alessandro Farinelli

Adaptive Learning for Multi-Agent Navigation
Julio E Godoy, Ioannis Karamouzas, Stephen J Guy, Maria Gini

Detecting and Correcting Model Anomalies in Subspaces of Robot Planning Domains
Juan Pablo Mendoza, Manuela Veloso, Reid Simmons

Solving Infrastructure Monitoring Problems with Multiple Heterogeneous Unmanned Aerial Vehicles
Jakub Ondracek, Ondrej Vanek, Michal Pechoucek

Observation Modelling for Vision-Based Target Search by Unmanned Aerial Vehicles
W. T. Luke Teacy, Simon J. Julier, Renzo De Nardi, Alex Rogers, Nicholas R. Jennings

Sliding Autonomy for UAV Path-Planning: Adding New Dimensions to Autonomy Management
Lanny Lin, Michael A Goodrich

Leading the Way: An Efficient Multi-robot Guidance System
Piyush Khandelwal, Samuel Barrett, Peter Stone

Friday 8 May — Lunch and Community Meeting

12.30 – 14.30 Community Meeting
Room: Üsküdar 2

Keynote Speakers

Wednesday 6 May 2015

09.00 – 10.00

On the Full Organism Challenge: Or, Can we Computerize an Elephant?

Prof. David Harel
Weizmann Institute of Science in Israel

Room: Üsküdar 2

We show how techniques from computer science and software engineering can be applied beneficially to research in the life sciences. I will discuss the idea of comprehensive and realistic modeling of biological systems, where we try to understand and analyze an entire system in detail, utilizing in the modeling effort all that is known about it. I will address the motivation for such modeling and the philosophy underlying the techniques for carrying it out, as well as the crucial question of when such models are to be deemed valid, or complete. The examples will be from among the biological modeling efforts my group has been involved in: T cell development, lymph node behavior, organogenesis of the pancreas, rat whisking, cancer tumor formation, and various projects regarding the C. elegans nematode. The ultimate long-term "grand challenge" is to produce an interactive, dynamic, computerized model of an entire multi-cellular organism, such as the C. elegans, which is extremely complex despite its small size, but well-defined in terms of anatomy and genetics. The sweeping potential benefits of such a model will be discussed.

Biography: Prof. David Harel has been at the Weizmann Institute of Science in Israel since 1980. He was Department Head from 1989 to 1995, and was Dean of the Faculty of Mathematics and Computer Science between 1998 and 2004. He was also co-founder of I-Logix, Inc. He received his PhD from MIT in 1978, and has spent time at IBM Yorktown Heights, and sabbaticals at Carnegie-Mellon, Cornell, and the University of Edinburgh. In the past he worked mainly in theoretical computer science (logic, computability, automata, database theory), and he now works mainly on software and systems engineering and on modeling biological systems. He is the inventor of Statecharts and co-inventor of Live Sequence Charts (LSCs), and co-designed Statemate, Rhapsody, the Play-Engine and PlayGo. Among his books are "Algorithmics: The Spirit of Computing" and "Computers Ltd.:

What They Really Can't Do", and his awards include the ACM Karlstrom Outstanding Educator Award (1992), the Israel Prize (2004), the ACM Software System Award (2007), the Emet Prize (2010), and five honorary degrees. He is a Fellow of ACM, IEEE and AAAS, a member of the Academia Europaea and the Israel Academy of Sciences, and a foreign member of the US National Academy of Engineering and the American Academy of Arts and Sciences.

Thursday 7 May 2015

09.00 – 10.00

Learning Submodular Functions with Applications to Multi-Agent Systems

Dr. Maria Florina Balcan
School of Computer Science, Carnegie Mellon University, USA

Room: Üsküdar 2

Machine learning can provide powerful tools for the design and analysis of multi-agent systems, as well as a novel lens on important questions in the area. In this talk I will focus on the use of machine learning for understanding submodular functions, an important class of discrete functions that model laws of diminishing returns and enjoy many important applications in multi-agent settings. For example, submodular functions are commonly used to model valuation functions for bidders in auctions, the influence of various subsets of agents in social networks, and the benefits of performing different actions in a variety of situations. Traditionally it is assumed that these functions are known to the decision maker; however, for large scale systems, in the age of big data, it is often the case they must be learned from observations.

In this talk, I will discuss a recent line of work on studying the learnability of submodular functions, and highlight its applications to the analysis of multi-agent systems. I will discuss both general algorithms for learning such functions, as well as even better guarantees that can be achieved for important classes appearing in multi-agent scenarios that exhibit additional structure. These classes include: probabilistic coverage functions that can be used to model the influence function in classic models of information diffusion in networks; functions with bounded complexity used in modeling bidder valuation functions in auctions, including XOS and gross-substitutes; and classes of functions appearing in cooperative game theory for expressing the values of various types of coalitions.

I will additionally discuss a large scale application of our algorithms for learning the influence functions in social networks, that significantly outperforms existing approaches empirically in both synthetic and real world data.

Biography: Maria Florina Balcan is an Associate Professor in the School of Computer Science at Carnegie Mellon University. Her main research interests are machine learning, computational aspects in economics and game theory, and algorithms. Her honors include the CMU SCS Distinguished Dissertation Award, an NSF CAREER Award, a Microsoft Faculty Research Fellowship, a Sloan Research Fellowship, and several paper awards at COLT. She is currently a board member of the International Machine Learning Society and was recently Program Committee chair for COLT 2014.

Friday 8 May 2015

09.00 – 10.00

Greta, an Interactive Expressive Embodied Conversational Agent
Dr. Catherine Pelachaud
Director of Research CNRS, LTCI, TELECOM ParisTech, France
Winner of 2015 ACM/SIGAI Autonomous Agents Award

Room: Üsküdar 2

Greta is an interactive Embodied Conversational Agent platform. It is endowed with socio-emotional and communicative behaviors. Through its behaviors, the agent can sustain a conversation as well as show various attitudes and levels of engagement.

Through the years, we have integrated all our research in the Greta platform. By applying different methodologies, based on corpus analysis, user-centered, or motion capture, we have enriched the agent's palette of multimodal behaviors. We have conducted various studies to simulate communicative behaviors, emotional behaviors, social attitudes and behavior expressivity. In particular we have proposed models to go beyond the prototypical expressions of emotions. Through its behaviors patterns, the agent can display complex emotions such as masking one expression of emotions by another ones, its relationship towards its interlocutors, specific social signals such as smile and laughter. In an interaction, the agent can be a speaker or a listener. It can exhibit backchannels, mimic on the fly its interlocutor's behaviors. To develop our models, we rely on theoretical models from social psychology literature and on data analysis.

After describing our platform, we will first review our rationale; then we will introduce our model of socio-emotional behaviors. Finally we will present experiments where we measure the impact of the agent's copying behaviors on the user's level of engagement.

Biography: Catherine Pelachaud is a Director of Research at CNRS in the laboratory LTCI, TELECOM ParisTech. She participated to the elaboration of the first embodied conversation agent system, GestureJack, with Justine Cassell, Norman Badler and Mark Steedman when being a post-doctorate at the University of Pennsylvania. She went to Università di Roma "La Sapienza" with a Marie-Curie CEE scholarship. Her research interest includes embodied conversational agent, nonverbal communication (face, gaze, and gesture), expressive behaviors and socio-emotional agents. With her research team, she has been developing an interactive virtual agent platform GRETA that can display socio-emotional and communicative behaviors. She has been involved and is still involved in several European projects related to believable embodied conversational agents, emotion and social behaviors. She is associate editors of several journals among which IEEE Transactions on Affective Computing, ACM Transactions on Interactive Intelligent Systems and Journal on Multimodal User Interfaces. She has co-edited several books on virtual agents and emotion-oriented systems. She participated to the organization of international conferences such as IVA, ACII and AAMAS, virtual agent track.

AAMAS Awards 2015

There are a number of awards associated with the AAMAS 2015 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:

The Dependence of Effective Planning Horizon on Model Accuracy
Nan Jiang, Alex Kulesza, Satinder Singh, Richard Lewis

Efficient Decision-Making in a Self-Organizing Robot Swarm: On the Speed Versus Accuracy Trade-Off
Gabriele Valentini, Heiko Hamann, Marco Dorigo

Dynamic Influence Maximization under Increasing Returns to Scale
Haifeng Zhang, Ariel Procaccia, Yevgeniy Vorobeychik

Best Paper of the Innovative Applications Track

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

Improving the Performance of Mobile Phone Crowdsourcing Applications
Erfan Davami, Gita Sukthankar

A Mechanism for Smoothly Handling Human Interrupts in Team Oriented Plans
Alessandro Farinelli, Nathan Brooks, Nicolò Marchi, Masoume Raeissi, Paul Scerri

HAC-ER: A Disaster Response System based on Human-Agent Collectives
Sarvapali Ramchurn, Edwin Simpson, Joel Fischer, Trung Dong Huynh, Yuki Ikuno, Steve Reece, Wenchao Jiang, Feng Wu, Jack Flann, Stephen J. Roberts, Luc Moreau, Tom Rodden, Nick Jennings

Pragnesh Jay Modi Best Student Paper

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

Factored MDPs for Optimal Prosumer Decision-Making
Angelos Angelidakis, Georgios Chalkiadakis

Particle Field Optimization: A New Paradigm for Swarm Intelligence
Bell Nathan, John Oommen

Welfare Effects of Market Making in Continuous Double Auctions
Elaine Wah, Michael Wellman

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 2014 award, a dissertation had to have been written as part of a PhD defended during the year 2014, 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 Manish Jain (2013), Birgit Endrass (2012), Daniel Villatoro (2011), Bo An (2010), Andrew Gilpin (2009), Ariel Procaccia (2008), Radu Jurca (2007), and Vincent Conitzer (2006).

The 2014 IFAAMAS Victor Lesser Distinguished Dissertation Award recipient is Dr. Yair Zick, whose thesis titled "Arbitration, Fairness and Stability: Revenue Division in Collaborative Settings" was supervised by Dr. Edith Elkind. The committee also wanted to recognise two other nominees (unordered): Dr. Tim Baarslag, whose thesis titled "What to Bid and When to Stop" was supervised by Prof. Catholijn Jonker and Dr. Koen Hindriks; and Dr. Xi (Alice) Gao, whose thesis titled "Eliciting and Aggregating Truthful and Noisy Information" was supervised by Assoc. Prof. Yiling Chen.

ACM/SIGAI Autonomous Agents Award

The ACM SIGART Autonomous Agents Research Award is an annual award for excellence in research in the area of autonomous agents. The award is intended to recognize researchers in autonomous agents whose current work is an important influence on the field. The award is an official ACM award, funded by an endowment created by ACM SIGART from the proceeds of previous Autonomous Agents conferences. Candidates for the award are nominated through an open nomination process. Previous winners of the SIGART Autonomous Research Award were Michael Wellman (2014), Jeffrey S. Rosenschein (2013), Moshe Tennenholtz (2012), Joe Halpern (2011), Jonathan Gratch and Stacy Marsella (2010), Manuela Veloso (2009), Yoav Shoham (2008), Sarit Kraus (2007), Michael Wooldridge (2006), Milind Tambe (2005), Makoto Yokoo (2004), Nick Jennings (2003), Katia Sycara (2002), and Tuomas Sandholm (2001).

The selection committee for the ACM/SIGAI Autonomous Agents Research Award is pleased to announce that Dr. Catherine Pelachaud, Director of Research at CNRS at Telecom ParisTech is the recipient of the 2015 award. Dr. Pelachaud is honored for her sustained and substantial contributions to the area of intelligent virtual agents. Her seminal work in this area helped launch the area of intelligent virtual agents, and her many subsequent publications have exerted a strong influence on virtual agent research at AAMAS and the Intelligent Virtual Agents conferences. Furthermore, her research on the role that bodily communication plays in face-to-face interaction has helped set the agenda of embodied agent research. In the process, it has firmly established a research area of modeling the body, its relation to the mind and its role in social interaction. Overall, this work has filled critical gaps in agents research often ignored by the larger community.

IFAAMAS Influential Paper Award

This year's IFAAMAS Influential Paper Award winner is Prof. Michael Littman, in recognition of his distinguished contributions to the field as exemplified by the following influential paper:

Michael L. Littman. **Markov games as a framework for multi-agent reinforcement learning**. Proceedings of the Eleventh International Conference on Machine Learning (ICML-94), New Brunswick, NJ, pp. 157-163, 1994.

AAAI Membership

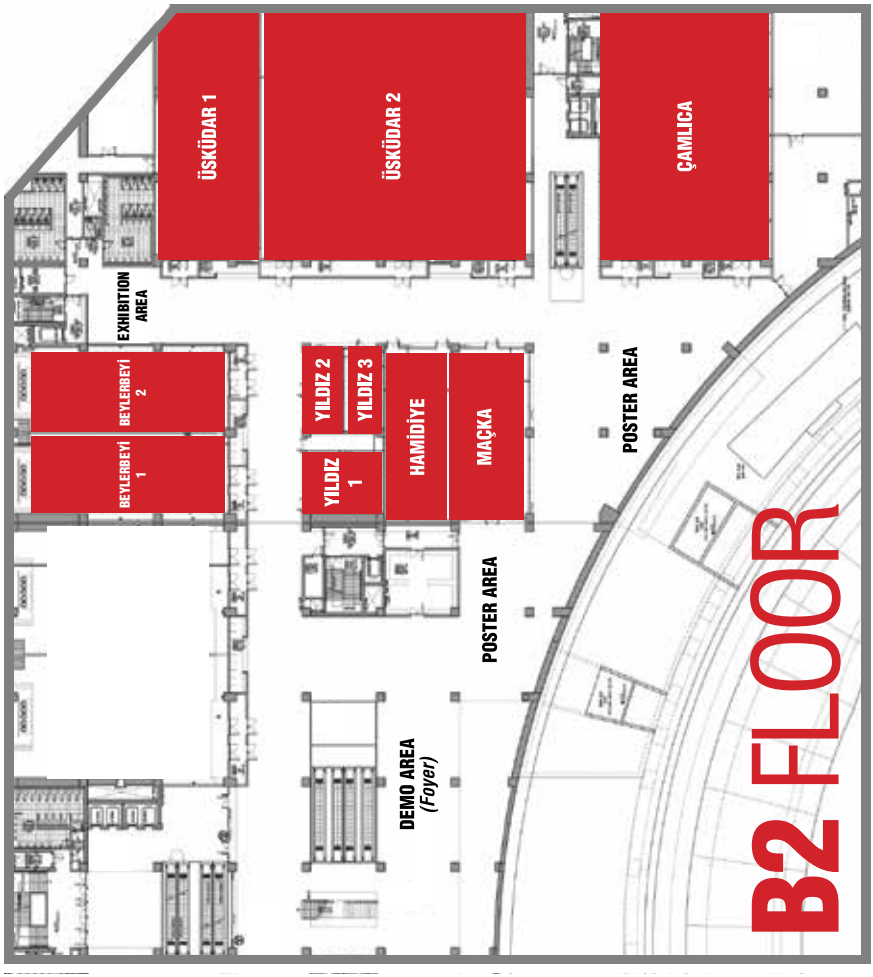
AAMAS is pleased to acknowledge its cooperation with the Association for the Advancement of Artificial Intelligence (AAAI) (`www.aaai.org`), which will be publicizing the conference to its membership.

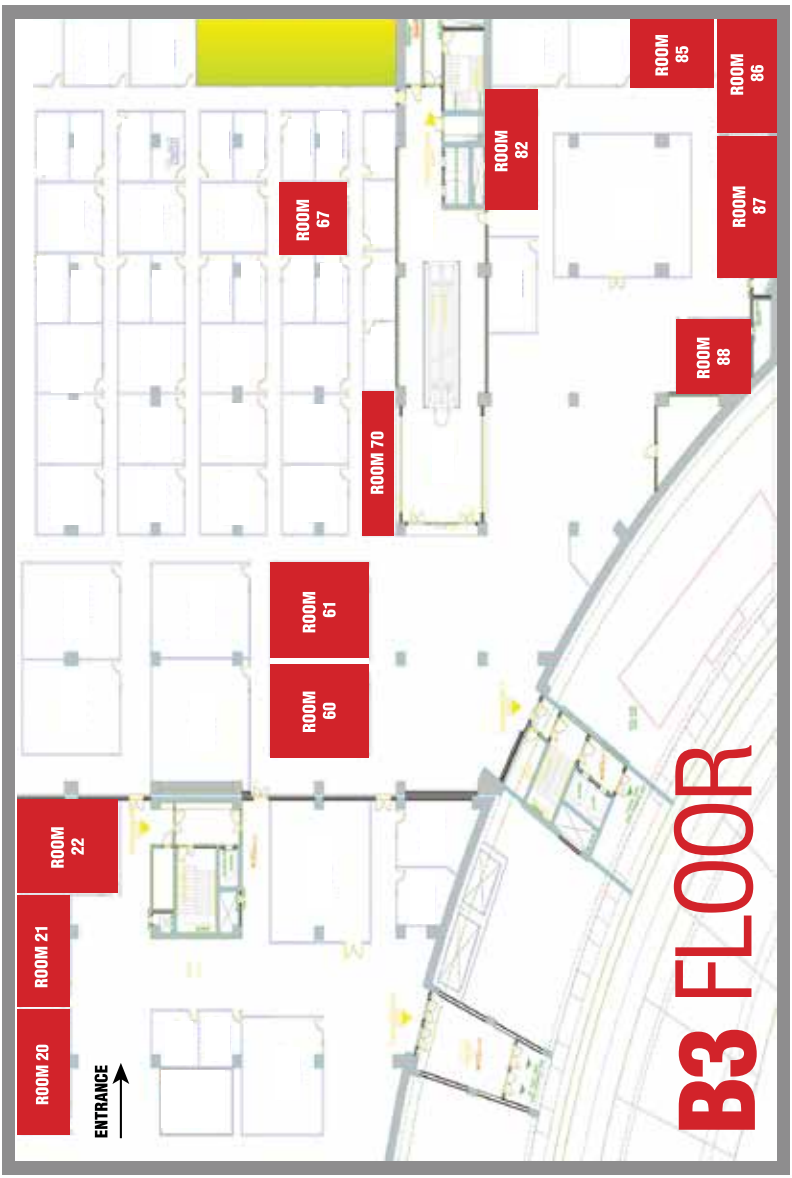
Of special interest to conference attendees is an introductory membership offer from AAAI, which provides a complimentary one-year online membership to conference participants who are new to AAAI.

Please send a message to `membership15@aaai.org` for further details.

AAMAS 2015 Situation Map

AAMAS 2015 Floor Maps




B3 FLOOR
ROOM 85
ROOM 86
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ROOM 70
ROOM 61
ROOM 60
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ROOM 21
ROOM 20
ENTRANCE

Reception

The welcome reception will take place at Boğaziçi University South Campus (Güney Kampüs), Albert Long Hall, on Tuesday May 5 from 19.00 to 21.30.

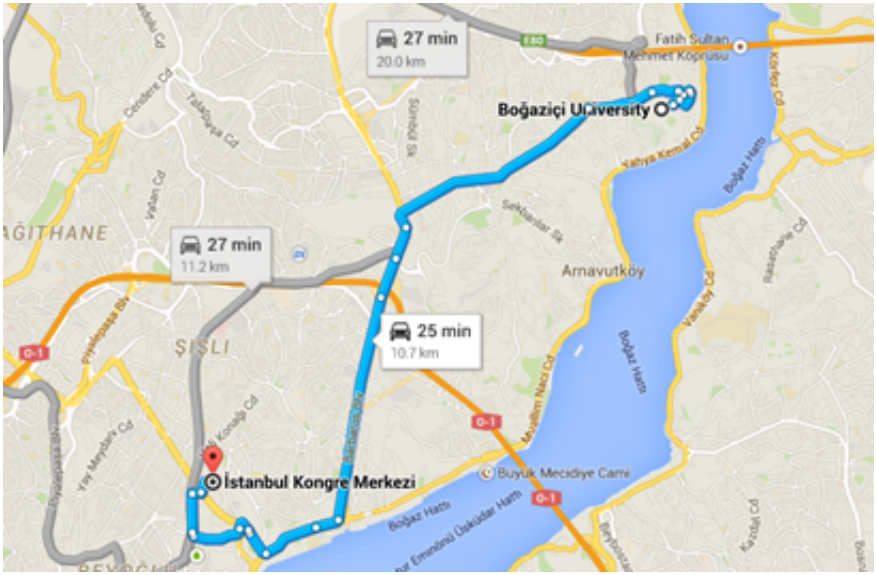
Address

Boğaziçi University
34342 Bebek/Istanbul

Access

Metro line: M2 (from Taksim) and then change to M6. Get off at Boğaziçi University stop.

Bus lines: 559 C (from Taksim), 59R (from Şişli), 43R (from Kabataş). Get off at Boğaziçi University Bus Stop.



Gala Dinner

The gala dinner will take place at Portaxe Restaurant, on Thursday 7 May from 19.30 to 23.30. The restaurant is located in the heart of the Bosporus on the European side with a magnificent view of the Asian side.

Reserved for participants with tickets.

Address

Baltalimanı Cad. No 60, Baltalimanı, Istanbul
Phone: (0212) 277 8233

Access

Buses from Istanbul Congress Center will depart at 18.45.

General Information

Venue

AAMAS 2015 will be held at:
Istanbul Congress Center (ICC)
Taşkışla Caddesi, Harbiye 34367, Istanbul, Türkiye
Tel: +90 212 373 99 00, Fax: +90 212 373 99 43, `www.iccistanbul.com`

Registration and Information Desk

Registration and information desk operates at the entrance of the ICC (level 0). Opening hours:

Monday 4 May: 07.00 - 19.00
Tuesday 5 May: 07.00 - 19.00
Wednesday 6 May: 07.00 - 19.00
Thursday 7 May: 08.00 - 19.00
Friday 8 May: 08.00 - 15.00

Badges

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

Liability and Insurance

Registration fees do not include the insurance of participants against personal accidents, sickness and cancellations by any party, theft, loss or damage to personal possessions.

Internet / WiFi

Wireless internet is available to conference participants in all meeting rooms and foyers.

Network name: `AAMAS2015`
Username: `Aamasistanbul`
Password: `aamas15`

Banks, Currency, Credit Cards

The local currency is the Turkish Lira (TL). Foreign currency can be exchanged at the airport as well as at private exchange offices found throughout the city (usually open from 08:30 to 20:00). In addition,

Traveller's Cheques and Eurocheques can be cashed at the local banks (open between 08:30 and 17:00). There are many banks and ATMs between Istanbul Congress Center and Taksim Square. Major debit and credit cards are accepted in most Turkish restaurants and shops.

Airport Access

Atatürk Airport is located 24 km west of the city centre (the Taksim area).

- Taxi approx. 45 minutes. Cost by taxi is approximately 60 TL (€ 20).
- Havataş Shuttle Services: Every half hour, journey time approx. 40 minutes, but it may vary according to the intensity of the traffic. Route: Departure: Taksim – Aksaray – Sahil Yolu – Atatürk Airport. Return: Atatürk Airport – Sahil Yolu – Aksaray – Taksim. Ticket price: 11 TL. Timetable: `www.havatas.com/en/`
- Private transfer can be booked through the conference secretariat.

City Transport

Istanbul has an extensive metro and bus system. Taxis are yellow and they all have meters. The opening charge is 3.20 TL and charge per km is 2.00 TL. The same flat rate is in force 24 hours a day.

Time Zone

Turkey is two hours ahead of Greenwich Mean Time (GMT) and seven ahead of Eastern Standard Time (EST). Daylight saving time is observed.

Electricity

The electric current is 220V AC with a frequency of 50 Hertz. European standard plugs with two round pins are used.

Tipping

Service charges are included in the cost of all goods and services. Although it is not mandatory, a small tip is customary for good service. As a guideline, add about 10% to the total bill. When paying by credit card, a cash tip is preferred.

Dining Out

Istanbul is a culinary delight no matter what your budget. From simple workers' eateries and sidewalk cafes to posh culinary palaces with liveried

waiters, Turkish cuisine is good and the value-for-money unbeatable. A typical Turkish dish generally consists of lamb, mutton, and veal with a variety of vegetables. Pilaf, all kinds of pastry, bulgur, haricot beans, rich olive oil, and vegetables are also common side dishes. Meatballs, shish kebab, and doner kebab are also classic dishes. Because of its coastal location, fish is also popular although it is usually cooked simply, such as grilled, or fried with olive oil and lemon juice. Istanbul is the commercial and cultural centre of Turkey, and there are restaurants of many nationalities such as Korean, Russian, Italian, and Chinese. American-style fast-food outlets are becoming more popular, but for a quick snack it is more appropriate to fill up at the plethora of tiny takeaways offering kebabs and snacks. It is easy to sample good quality regional cuisine in typical small restaurants, usually at low cost, especially in the commercial and business areas.

See page 67 for a map of restaurants close to the conference venue.

Shopping in Istanbul

Famed as the City of a Thousand Colours and Fragrances, Istanbul is a paradise for shoppers. A large variety of traditional carpets, jewels, gold, and leather goods can be purchased on the street in the tourist areas, or one can visit the city's modern shopping malls where Turkish brand goods can be found. The shops are open from 08.00 to 21.00 from Monday to Saturday. The Grand Bazaar and Spice Bazaar open their gates at 08.00 and close at 19.00. The large shopping malls open from 10.00 to 22.00 seven days a week. Shops do not close for lunch.

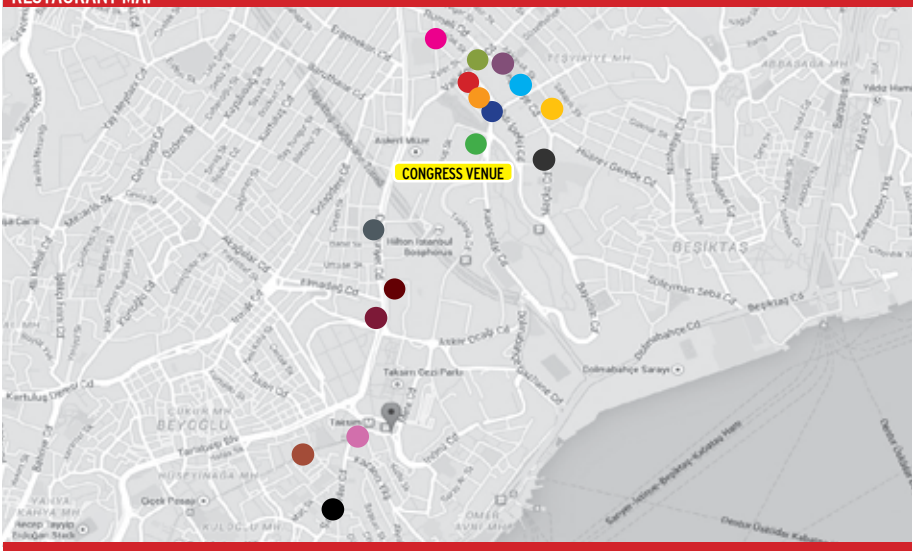
Daily and Post-Conference Tours

There is a lot to be seen in Istanbul and Turkey. A selection of tours will be available throughout the conference including the famous sites at the Historical Peninsula—also known as the Old City—and Bosphorus cruises. The Aegean, Anatolian and Mediterranean sections of Turkey are also packed with archaeological sites of varying ancient civilizations and can be visited in post-conference tours.

Useful Telephone Numbers

Ambulance: 112
Police: 155
Fire Brigade: 110

RESTAURANT MAP



Hünkar Restaurant | *Kebap House, home cooked meal*
(Average amount per person 50-75 TL)
Mim Kemal Öke Cad. No: 21/1 Nişantaşı
www.hunkar1950.com

Delicatessen Istanbul | *The World kitchen, cafe, breakfast*
(Average amount per person 100-150 TL)
Mim Kemal Öke Cad. No: 19/1 Nişantaşı
www.delicatessenistanbul.com

City's Nişantaşı
Shopping mall with a large food court on the top floor.
Teşvikiye Cad. No: 162 Nişantaşı
www.citysnisantasi.com

Juno | *The World kitchen, cafe*
(Average amount per person 50 TL)
Mim Kemal Öke Cad. No : 15 Nişantaşı
www.junojuno.com

Marmaris Büfe | *Turkish fast food*
(Average amount per person 20 TL
Cumhuriyet Cad. No:9/A Taksim
www.marmarisbufe.net

Burger King | *Fastfood*
İstiklal Cad.No :5 Taksim
www.burgerking.com.tr

Mc Donalds | *Fastfood*
İstiklal Cad. No : 93 Taksim
www.mcdonalds.com.tr

Galata Muhallebicisi | *Doner kebab, Turkish desserts*
(Average amount per person 25-50 TL)
Teşvikiye Cd. No:55 İmren Ap. Nişantaşı
www.galatamuhallebicisi.com

The House Café | *The World kitchen, cafe, breakfast*
(Average amount per person 75-100 TL)
Atiye sok. 10/1 Şişli Teşvikiye
www.thehousecafe.com

Pipa Restaurant | *Pizza, Italian*
(Average amount per person 50-75 TL)
Süleyman Nazif Sok. 7/B, Nişantaşı
www.pipa.com.tr

Faros Restaurant | *Breakfast, kebap, cafe, Greek, The World Kitchen*
(Average amount per person 50 TL)
Cumhuriyet Cad. No: 31/A Elmadağ Taksim / Beyoğlu
farosrestaurants.com

Midpoint | *Breakfast, The World kitchen*
(Average amount per person 50-75 TL)
Abdi İpekçi Cad. Kızılkaya Apt. No:59 Nişantaşı
www.midpoint.com.tr

Urban Diner | *Cafe, American, breakfast*
(Average amount per person 25-50 TL)
Kadırgalar Caddesi, No 4/B, Cumhuriyet Parkı İçi, Şişli
0212 231 96 87

Polo Patisserie & Cafe Patisserie | *Cafe*
(Average amount per person 20 TL)
Cumhuriyet Cad. 111/A, Elmadağ
www.polopastanesi.com

Welldone | *Breakfast, The World kitchen*
(Average amount per person 50-75 TL)
Abdi İpekçi Caddesi, No:3, Şişli
0212 219 17 58

Changa | *Vegeterian*
(Average amount per person 50-75 TL)
Sıraselviler Cad. No :41 Taksim
www.changa-istanbul.com

Call for Participation (AAMAS'16)

9-13 May 2016, Singapore

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 2016, the fifteenth 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 2016 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.

General Chairs: Catholijn Jonker (Delft University of Technology, Netherlands)
Stacy Marsella (Northeastern University, USA)

Program Chairs: Karl Tuyls (University of Liverpool, UK)
John Thangarajah (RMIT University, Australia)

The full call for papers, along with descriptions of the special tracks and all topics of interest, and the important dates will be made available at: **http://sis.smu.edu.sg/aamas2016**

14th INTERNATIONAL CONFERENCE ON AUTONOMOUS AGENTS & MULTIAGENT SYSTEMS
2015
4-8 May 2015 • ISTANBUL CONGRESS CENTER

AAMAS

AAMAS 2015 main conference programme

	Wednesday 6	Thursday 7	Friday 8
08:45	Opening		
09:00	**A** Keynote: Harel	**F** Keynote: Balcan	**K** ACM AA Award Talk: Pelachaud
10:00	Posters 1	Posters 2	Demos and Posters
11:00	**B1** Game Theory I **B2** Social Choice I **B3** Learning I **B4** Logic I **B5** Bio-inspired Approaches	**G1** Game Theory III **G2** Social Choice II **G3** Learning II **G4** Applications II **G5** Robotics I	**L1** Game Theory V **L2** Social Choice IIII **L3** Logic IIII **L4** Virtual Agents II **L5** Robotics III
12:30	Lunch break	Lunch break	Community meeting
13:30	Posters 1	Posters 2	
14:30	**C1** Game Theory II **C2** Cooperation **C3** Agent Societies **C4** Applications I **C5** Virtual Agents I	**H1** Game Theory IV **H2** Logic II **H3** Eng. Agent-Based Systems **H4** Applications III **H5** Planning I	
16:00	Demos 1	Demos 2	
16:30	**D** Panel – Theory and Practice at AAMAS: Provoking a Balance	**I1** Blue Sky Ideas **I2** Hedonic Games **I3** Planning II **I4** Applications IV **I5** Robotics II	
17:15		**J** Dissertation Award Talk: Zick	

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AUTONOMOUS AGENTS & MULTIAGENT SYSTEMS

2015

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