## TENTATIVE PROGRAM ECAI 2012 (VERSION 1)

| TUESDAY         | TENTATIVE PROGRAM ECAI 2012 (VERSION 1)  |
|-----------------|--|
| 18:00           | Opening Session  |
|                 | Invited Speaker Wolfram Burgard Probabilistic Techniques for Mobile Robot Navigation   |
|                 | Opening Reception  |
| WEDNESDAY       |  |
| 09:00           | Invited Speaker Adnan Darwiche Generalized Decision Diagrams: the Game is not over yet!  |
| 10.00           |  |
| 10:00           | Coffee   |
| 10:30-12:40     | Anniversary and Turing Session 1 Opening Remarks   |
|                 | Einar Fredriksson and Maria Fox  European Collaboration in Automated Reasoning   |
|                 | Alan Bundy   |
|                 | Biological, Computational and Robotic Connections with Kant's Theory of Mathematical Knowledge<br>Aaron Sloman                                   |
|                 | Session 1A: Auctions, Mechanism Design and Trust   |
| 158             | Almost-truthful Mechanisms for Fair Social Choice Functions  |
| 338             | Julien Lesca and Patrice Perny<br>Multi-unit Auctions with a Stochastic Number of Asymmetric Bidders   |
| 570             | loannis Vetsikas, Sebastian Stein and Nicholas R. Jennings<br>Multi-unit Double Auction under Group Buying                                       |
|                 | Dengji Zhao, Dongmo Zhang and Laurent Perrussel  |
| 253             | A Protocol Based on a Game-Theoretic Dilemma to Prevent Malicious Coalitions in Reputation Systems<br>Grégory Bonnet                             |
| 409             | Trust-based Solution for Robust Self-configuration of Distributed Intrusion Detection Systems  Karel Bartos and Martin Rehak                     |
|                 |  |
| 211             | Session 1B: Heuristic Search A New Approach to the Snake-In-The-Box Problem  |
| 567             | <br>David Kinny<br>Speeding Up 2-way Number Partitioning   |
| 307             | Jesús Cerquides and Pedro Meseguer   |
| 210             | A Study of Local Minimum Avoidance Heuristics for SAT Thach-Thao Duong, Duc Nghia Pham and Abdul Sattar  |
| 326             | Ideal Point Guided Iterative Deepening   |
| 439             | Javier Coego, Lawrence Mandow and Jose Luis Pérez de la Cruz<br>Finding and Proving the Optimum: Cooperative Stochastic and Deterministic Search |
|                 | Jean-Marc Alliot, Nicolas Durand, David Gianazza and Jean-Baptiste Gotteland   |
| 240             | Session 1C: Machine Learning Comparator selection for RPC with many labels   |
|                 | Samuel Hiard, Pierre Geurts and Louis Wehenkel   |
| 14              | A Bayesian Multiple Kernel Learning Framework for Single and Multiple Output Regression<br>Mehmet Gönen  |
| 299             | Adversarial Label Flips Attack on Support Vector Machines<br>Han Xiao, Huang Xiao and Claudia Eckert   |
| 16              | Compression-based AODE Classifiers   |
| 446             | Giorgio Corani, Alessandro Antonucci and Rocco de Rosa<br>An Analysis of Chaining in Multi-Label Classification                                  |
|                 | Krzysztof Jerzy Dembczynski, Willem Waegeman and Eyke Hüllermeier  |
| 576             | Session 1D: Planning and Scheduling  |
|                 | Enhancing predictability of schedules by task grouping Michel Wilson, Cees Witteveen and Bob Huisman   |
| 35              | Logic-based Benders Decomposition for Alternative Resource Scheduling with Sequence-Dependent Setups  Tony Tran and J. Christopher Beck          |
| 398             | Complexity of Conditional Planning under Partial Observability and Infinite Executions Jussi Rintanen  |
| 405             | Opportunistic Branched Plans to Maximise Utility in the Presence of Resource Uncertainty   |
| 85              | Amanda Coles<br>Preferring Properly: Increasing Coverage while Maintaining Quality in Anytime Temporal Planning                                  |
|                 | Patrick Eyerich  |
|                 | RuleML   |
| Lunch           | ECCAI Fellows Lunch  |
| WEDNESDAY       | Session 2A: Negotation and Coordination  |
| 14:30-16:10 164 | An efficient and adaptive approach to negotiation in complex environments Siqi Chen and Gerhard Weiss  |
| 390             | Guiding User Choice During Discussion by Silence, Examples and Justifications<br>Maier Fenster, Inon Zuckerman and Sarit Kraus                   |
| 381             | Negotiating Concurrently with Unknown Opponents in Complex, Real-Time Domains  |
| 54              | Colin R. Williams, Valentin Robu, Enrico H. Gerding and Nicholas R. Jennings  Coordinated Exploration with a Shared Goal in Costly Environments  |
|                 | Igor Rochlin, David Sarne and Moshe Laifenfeld   |
|                 | Session 2B: Possibilistic Approaches   |
| 456             | Hybrid Possibilistic Conditioning for Revision under Weighted Inputs<br>Salem Benferhat, Célia da Costa Pereira and Andrea G. B. Tettamanzi      |
| 360             | Decision-making with Sugeno integrals: DMU vs. MCDM  |
|                 | Miguel Couceiro, Didier Dubois, Henri Prade and Tamás Waldhaus   |

| 389         | Salem Benferhat and Karim Tabia<br>Characterization of Positive and Negative Information in Comparative Preference Representation             |
|-------------|---|
|             | Souhila Kaci  |
| 42          | Session 2C: Non-monotonic Reasoning Maxi-Consistent Operators in Argumentation  |
|             | Srdjan Vesic  |
| 259         | Large-scale Parallel Stratified Defeasible Reasoning Ilias Tachmazidis, Grigoris Antoniou, Giorgos Flouris, Spyros Kotoulas and Lee McCluskey |
| 204         | A Ranking Semantics for First-Order Conditionals Gabriele Kern-Isberner and Matthias Thimm  |
| 358         |   |
|             |   |
| 463         | Session 2D: Markov Decision Processes Ordinal Decision Models for Markov Decision Processes   |
| 480         | Paul Weng<br>Path-Constrained MDPs: bridging the gap between probabilistic model-checking and MDP planning                                    |
|             | Florent Teichteil-Königsbuch  |
| 332         | Exploiting Expert Knowledge in Factored POMDPs Felix Müller, Christian Späth, Thomas Geier and Susanne Biundo                                 |
| 464         | Sample-Based Policy Iteration for Constrained DEC-POMDPs Feng Wu, Nicholas R. Jennings and Xiaoping Chen                                      |
|             | Session 2E: Description Logics (1)  |
| 583         | Introducing Datatypes in DL-Lite  |
| 353         | Ognjen Savkovic and Diego Calvanese<br>DL-Lite with Attributes and Datatypes  |
| 264         | Alessandro Artale, Roman Kontchakov and Vladislav Ryzhikov  Updating inconsistent Description Logic knowledge bases                           |
| 477         | Maurizio Lenzerini and Domenico Fabio Savo<br>Concepts, Agents, and Coalitions in Alternating Time  |
| 4//         | Wojciech Jamroga  |
|             | RuleML  |
| 16:10-16:45 | Coffee  |
| WEDNESDAY   | Session 3A: ECCAI Best Dissertation Talks   |
| 16:45-18:00 | Honorable mention: <i>Dynamic Magic Sets</i> Mario Alviano  |
|             | Honorable mention: The evolution of grounded spatial language Michael Spranger  |
|             | Best Dissertation: Approaches to Model Learning for Mobile Manipulation Robots  |
|             | Jürgen Sturm  |
| 47          | Session 3B: Search in Games Improving Local Decisions in Adversarial Search   |
| 553         | Brandon Wilson, Inon Zuckerman, Austin Parker and Dana S. Nau<br>Game-theoretic Approach to Adversarial Plan Recognition                      |
|             | Viliam Lisy, Radek Pibil, Jan Stiborek, Branislav Bosansky and Michal Pechoucek   |
| 100         | Multiple-Outcome Proof Number Search<br>Abdallah Saffidine and Tristan Cazenave   |
|             | Session 3C: Agent and Game Learning   |
| 271         | Efficient Crowdsourcing of Unknown Experts using Multi-Armed Bandits Long Tran-Thanh, Sebastian Stein, Alex Rogers and Nicholas R. Jennings   |
| 479         | Creating Features from a Learned Grammar in a Simulated Student Nan Li, Abraham Schreiber, William W. Cohen and Kenneth R. Koedinger          |
| 457         | Learning to Play Simplified Boardgames by Observing   |
|             | Yngvi Björnsson   |
| 501         | Session 3D: Actions, Change and Causality Representing Value Functions with Recurrent Binary Decision Diagrams                                |
| 233         | Daniel Beck and Gerhard Lakemeyer Strategic and Epistemic Reasoning for the Game Description Language GDL-II                                  |
|             | Ji Ruan and Michael Thielscher  |
| 310         | Planning as Quantified Boolean Formula<br>Michael Cashmore, Maria Fox and Enrico Giunchiglia  |
|             | Session 3E:Ontologies   |
| 431         | Inconsistency Handling in Datalog+/- Ontologies Thomas Lukasiewicz, Maria Vanina Martinez and Gerardo I. Simari                               |
| 110         | Large-scale Interactive Ontology Matching: Algorithms and Implementation  |
| 401         | Ernesto Jiménez-Ruiz, Bernardo Cuenca Grau, Yujiao Zhou and Ian Horrocks<br>Context-Aware Access Control for RDF Graph Stores                 |
|             | Luca Costabello, Serena Villata and Fabien Gandon   |
|             | RuleML  |
|             | ECCAI General Assembly  |
|             | Visit to IBM Research   |
| THURSDAY    |   |
| 09:00       | Invited Speaker Tom Mitchell  |

Salem Benferhat and Karim Tabia

Invited Speaker Tom Mitchell Never Ending Learning

| 10:00       |     | Coffee  |
|-------------|-----|---|
| 10:30-12:40 |     | Anniversary and Turing Session 2  |
|             |     | Artificial Intelligence in a Historical Perspective   |
|             |     | Wolfgang Bibel<br>A Perspective on the Early History of AI in Europe  |
|             |     | Erik Sandewall  |
|             |     | Deliberate Action in Robotics: a Perspective<br>Malik Ghallah   |
|             |     | THURN CHARLES   |
|             | 40  | Session 4A: Computational Social Choice Weighted Manipulation for Four-Candidate Llull Is Easy  |
|             | 40  | Piotr Faliszewksi, Edith Hemaspaandra and Henning Schnoor   |
|             | 236 | Combining Voting Rules Together Nina Naroditskaya, Toby Walsh and Lirong Xia  |
|             | 118 | Choosing Combinatorial Social Choice by Heuristic Search  |
|             | 0.5 | Minyi Li and Quoc Bao Vo  |
|             | 95  | Online Voter Control in Sequential Elections Edith Hemaspaandra, Lane A. Hemaspaandra and Jörg Rothe                                      |
|             | 547 | Institutionalised Paxos Consensus   |
|             |     | David Sanderson and Jeremy Pitt   |
|             |     | Session 4B: Data Mining   |
|             | 500 | Symmetries in Itemset Mining Said Jabbour, Lakhdar Sais, Yakoub Salhi and Karim Tabia   |
|             | 428 | Extending Set-Based Dualization: Application to Pattern Mining  |
|             | 404 | Lhouari Nourine and Jean-Marc Petit  Hierarchical and Overlapping Co-Clustering of mRNA:miRNA Interactions                                |
|             | 404 | Gianvito Pio, Michelangelo Ceci, Corrado Loglisci, Domenica D'Elia and Donato Malerba   |
|             | 548 | Multirelational Consensus Clustering with Nonnegative Decompositions  |
|             | 131 | Liviu Badea Process Discovery via Precedence Constraints  |
|             |     | Gianluigi Greco, Antonella Guzzo and Luigi Pontieri   |
|             |     | Session 4C: Planning (1)  |
|             | 465 | On Exploiting Structures of Classical Planning Problems: Generalizing Entanglements   |
|             | 175 | Lukas Chrpa and Lee McCluskey  Macros, Reactive Plans and Compact Representations   |
|             |     | Christer Bäckström, Anders Jonsson and Peter Jonsson  |
|             | 187 | From Macro Plans to Automata Plans Christer Bäckström, Anders Jonsson and Peter Jonsson   |
|             | 222 | Engineering Efficient Planners with SAT   |
|             | 296 | Jussi Rintanen Propositional Planning as Optimization   |
|             | 250 | Andreas Sideris and Yannis Dimopoulos   |
|             |     | Session 4D: Spatial and Temporal Reasoning  |
|             | 53  | SAT vs. Search for Qualitative Temporal Reasoning   |
|             | 159 | Jinbo Huang<br>Nearness Rules and Scaled Proximity  |
|             | 133 | Özgür L Özçep, Rolf Grütter and Ralf Möller   |
|             | 511 | Combining DRA and CYC into a Network Friendly Calculus<br>Malumbo Chipofya  |
|             | 524 | Convex Solutions of RCC® Networks   |
|             | 138 | Steven Schockaert and Sanjiang Li<br>Interval Temporal Logics over Finite Linear Orders: the Complete Picture                             |
|             | 130 | Davide Bresolin, Dario Della Monica, Angelo Montanari, Pietro Sala and Guido Sciavicco  |
|             |     | PAIS 1  |
|             |     | Context-Based Search in Software Development  |
|             |     | Bruno Antunes, Joel Cordeiro and Paulo Gomes  |
|             |     | Event Processing for Intelligent Resource Management Alexander Artikis, Robin Marterer, Jens Pottebaum and Georgios Paliouras             |
|             |     | Partially Observable Markov Decision Process for Closed-Loop Anesthesia Control   |
|             |     | Eddy C. Borera, Brett L. Moore and Larry D. Pyeatt  POMDP-based Online Target Detection and Recognition for Autonomous UAVs               |
|             |     | Caroline P. Carvalho Chanel, Florent Teichteil-Königsbuch and Charles Lesire  |
|             |     | A Multi-objective Approach to Balance Buildings Construction Cost and Energy Efficiency Alvaro Fialho, Youssef Hamadi and Marc Schoenauer |
|             |     | · · · · · · · · · · · · · · · · · · ·   |
| Lunch       |     | Editorial Board AIJ Lunch   |
| THURSDAY    |     | Session 5A: Constraints, Satisfiability and Learning  |
| 14:30-16:10 | 37  | Improving Local Search for Random 3-SAT Using Quantitative Configuration Checking<br>Chuan Luo, Kaile Su and Shaowei Cai                  |
|             | E10 | A CAT Based Approach for Dissourcing Frequent Closed and Maying Batterns : C  |

| 510 | A SAT-Based Approach for Discovering Frequent, Closed and Maximal Patterns in a Sequence                        |
|-----|---|
|     | Emmanuel Coquery, Said Jabbour, Lakhdar Sais and Yakoub Salhi   |
| 413 | Inconsistency Measurement based on Variables in Minimal Unsatisfiable Subsets                                   |
|     | Guohui Xiao and Yue Ma  |
| 286 | Hybrid Regression-Classification Models for Algorithm Selection   |
|     | Lars Kotthoff   |
|     |   |
|     | Session 5B: Description Logics (2)  |
| 526 | Verification of Description Logic Knowledge and Action Bases  |
|     | Babak Bagheri Hariri, Diego Calvanese, Giuseppe De Giacomo, Riccardo De Masellis, Paolo Felli and Marco Montali |
| 11  | ExpExpExplosion: Uniform Interpolation in General EL Terminologies  |
|     | Nadeschda Nikitina and Sebastian Rudolph  |
| 382 | Complexity of Branching Temporal Description Logics   |
|     | Víctor Gutiérrez-Basulto, Jean Christoph Jung and Carsten Lutz  |

|     | Matthias Knorr, Pascal Hitzler and Frederick Maier                                    |
|-----|---|
|     |   |
|     | Session 5C: Multi-Disciplinary Approaches   |
| 462 | Towards a Complete Classical Music Companaion   |
|     | Andreas Arzt, Gerhard Widmer, Sebastian Böck, Reinhard Sonnleitner and Harald Frostel |
| 546 | When intelligence is just a matter of copying   |
|     | William Correa, Henri Prade and Gilles Richard  |
| 250 | Solving Raven s IQ-tests: An Al and Cognitive Modeling Approach                       |
|     | Marco Ragni and Stefanie Neubert  |
| 585 | Best Reply Dynamics for scoring rules   |
|     | Reyhaneh Reyhani and Mark C. Wilson   |
|     |   |
|     | Session 5D: Perception and Robotics   |
| 215 | Improving Video Activity Recognition using Object Recognition and Text Mining         |
|     | Tanvi S. Motwani and Raymond J. Mooney  |
| 357 | Detecting Human Patterns in Laser Range Data  |
|     | Theodoros Varvadoukas, Ioannis Giotis and Stasinos Konstantopoulos                    |
| 355 | Routing for continuous monitoring by multiple micro UAVs in disaster scenarios        |
|     | Vera Mersheeva and Gerhard Friedrich  |
| 374 | Planning with Semantic Attachments: An Object-Oriented View                           |
|     | Andreas Hertle, Christian Dornhege, Thomas Keller and Bernhard Nebel                  |
|     |   |
|     | Session 5E: Argumentation   |
| 45  | What Does it Take to Enforce an Argument? Minimal Change in Abstract Argumentation    |
|     | Ringo Baumann   |
| 273 | A Probabilistic Semantics for Abstract Argumentation                                  |
|     | Matthias Thimm  |
| 287 | An empirical study of argumentation schemes for deliberative dialogue                 |
|     | Alice Toniolo, Timothy J. Norman and Katia Sycara                                     |
| 393 | Agent Strategies for ABA-based Information-seeking and Inquiry Dialogues              |
|     | Xiuyi Fan and Francesca Toni  |
|     |   |

Reconciling OWL and Non-monotonic Rules for the Semantic Web

## PAIS 2

Cooperatives for Demand Side Management Ramachandra Kota, Georgios Chalkiadakis, Valentin Robu, Alex Rogers and Nicholas R. Jennings Wind Speed Forecasting using Spatio-temporal Indicators

Orlando Ohashi and Luís Torgo

 $Predicting \ the \ Power \ Output \ of \ Distributed \ Renewable \ Energy \ Resources \ within \ a \ Broad \ Geographical \ Region$ Athanasios Aris Panagopoulos, Georgios Chalkiadakis and Eftichios Koutroulis

A Reinforcement Learning Approach to Optimize the Longitudinal Behavior of a Partial Autonomous Driving Assistance System Olivier Pietquin and Fabio Tango

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Coffee

THURSDAY 16:10-18:00

## System Demonstrations and Poster Session

System Demonstrations An Infrastructure for Human Inclusion in MAS

Pablo Almajano, Tomas Trescak, Inmaculada Rodriguez and Maite Lopez-Sanchez

\*Training Crisis Managers with PANDORA\*

Liz Bacon, Amedeo Cesta, Luca Coraci, Gabriella Cortellessa, Riccardo De Benedictis, Sara Grilli, Jure Polutnik and Keith Strickland FlowOpt: Bridging the Gap Between Optimization Technology and Manufacturing Planners

Roman Barták, Milan Jaska, Ladislav Novák, Vladimír Rovensky, Tomás Skalicky, Martin Cully, ConSheahan and Dang Thanh-Tung WantEat: Interacting with Social Networks of Smart Objects for Sharing Cultural Heritage and Supporting Sustainability
Luca Console, Giulia Biamino, Francesca Carmagnola, Federica Cena, Elisa Chiabrando, Roberta Furnari, Cristina Gena, Pierluigi Grillo, Silvia Likavec, Ilaria Lombardi, Michele Mioli, Claudia Picardi, Daniele Theseider Dupré, Fabiana Vernero, Rossana Simeoni, Fabrizio Antonelli, Vincenzo Cuciti, Matteo Demichelis, Fabrizio Franceschi, Marina Geymonat, Alessandro Marcengo, Dario Mana, Michele

Mirabelli, Monica Perrero, Amon Rapp, Franco Fassio, Piercarlo Grimaldi and Fabio Torta Mo.Di.Bot – Mobile Diagnostic Robot

Cristina Cristalli, Giacomo Angione, Luca Lattanzi, Birgit Graf, Florian Weisshardt and Georg Arbeiter
Metaheuristic Aided Software Features Assembly

José del Sagrado, Isabel M.del Águila and Francisco J. Orellana

Designing KDD-Workflows via HTN-Planning

Jörg-Uwe Kietz, Floarea Serban, Abraham Bernstein and Simon Fischer

Confidence: Ubiquitous Care System to Support Independent Living

Mitja Lustrek, Bostjan Kaluza, Bozidara Cvetkovic, Erik Dovgan, Hristijan Gjoreski, Violeta Mirchevska and Matjaz Gams Autonomous Construction with a Mobile Robot in a Resource-limited Environment: a Demonstration of the Integration of Perception, Planning and Action

Stéphane Magnenat, Alexey Gribovskiy and Francesco Mondada WissKI: A Virtual Research Environment for Cultural Heritage

Martin Scholz and Guenther Goerz AGENTFLY: Multi-Agent Simulation of Air-Traffic Management

David Sislak, Premysl Volf, Dusan Pavlicek and Michal Pechoucek

## ECAI Posters

A Stubborn Set Algorithm for Optimal Planning
Yusra Alkhazraji, Martin Wehrle, Robert Mattmüller and Malte Helmert

**Preemption Operators** 

Philippe Besnard, Éric Grégoire and Sébastien Ramon

Reasoning for Agreement Technologies Guido Boella and Leon Van der Torre

An Adaptive Clustering Model that Integrates Expert Rules and N-gram Statistics for Coreference

Razvan Bunescu

Mining Extremes: Severe Rainfall and Climate Change

Debasish Das, Evan Kodra, Zoran Obradovic and Auroop Ganguly CAKES: Cross-lingual Wikipedia Knowledge Enrichment and Summarization

Valeria Fionda and Giuseppe Pirró

A Novel Way to Connect BnB-ADOPT+ with Soft AC

Patricia Gutierrez and Pedro Meseguer

16:10-16:45

Edith Hemaspaandra, Lane Hemaspaandra and Jörg Rothe Implementation of Critical Path Heuristics for SAT Jinbo Huang Evolutionary Clusterina on CUDA Pavel Krömer, Jan Platos and Václav Snásel Practical Reformulations With Table Constraints Olivier Lhomme On Partitioning for Maximum Satisfiability Ruben Martins, Vasco Manquinho and Inês Lynce Ontologising Semantic Relations into a Relationless Thesaurus Hugo Gonçalo Oliveira and Paulo Gomes Advances in Distributed Branch and Bound Lars Otten and Rina Dechter Intermediary Local Consistencies Thierry Petit The Consistency of Majority Rule Daniele Porello Probabilistic Path-Disruption Games Anja Rey and Jörg Rothe Towards a Declarative Spatial Reasoning System Carl Schultz and Mehul Bhatt An Alternative Eager Encoding of the All-Different Constraint over Bit-Vectors Pavel Surynek **VOI-aware MCTS** David Tolpin and Solomon Eyal Shimony Approximation of Steiner Minimum Trees in Planar Graphs Using Euclidian Steiner Minimum Trees Bjoern Zenker Reasoning with Fuzzy-EL+ Ontologies Using MapReduce Zhangquan Zhou, Guilin Qi, Chang Liu, Pascal Hitzler and Raghava Mutharaju PAIS POSTERS LSA for Mining Hidden Information in Action Game Semantics Katia Lida Kermanidis, Panagiotis Pandis, Costas Boletsis and Dimitra. Chasanidou WeMiT: Web-Mining for Translation Mathieu Roche and Oana Mihaela Garbasevschi Master Orientation Tool Alexandru Surpatean, Evgueni Smirnov and Nicolai Manie 18:00? Buses leave for Banquet FRIDAY Invited Speaker Michael Wooldridge 09:00 Bad Equilibria, and What to do About Them 10:00 Coffee 10:30-12:40 **Anniversary and Turing Session 3** Alan Turing and the development of Artificial Intelligence Stephen Muggleton TBA Michèle Sebag TBA Hector Geffner Session 6A: Model Based Reasoning and Diagnosis 166 Optimizations for the Boolean Approach to Computing Minimal Hitting Sets Ingo Pill and Thomas Quaritsch 472 On computing correct processes and repairs using partial behavioral models Wolfgang Mayer, Gerhard Friedrich and Markus Stumptner Spectrum Enhanced Dynamic Slicing for better Fault Localization 67 Birgit Hofer and Franz Wotawa 301 LoCo - A Logic for Configuration Problems Markus Aschinger, Conrad Drescher and Heribert Vollmer Diagnosing Delays in Multi-Agent Plans Execution 333 Roberto Micalizio and Gianluca Torta Session 6B: Natural Language Processing 223 Markov Constraints for Generating Lyrics with Style Gabriele Barbieri, François Pachet, Pierre Roy and Mirko Degli Esposti Synonymy Extraction From Semantic Networks Using String and Graph Kernel Methods 535 Tim vor der Brück and Yu-Fang Helena Wang Natural Language Arguments: A Combined Approach
Elena Cabrio and Serena Villata 321 Discovering Cross-language Links in Wikipedia through Semantic Relatedness 518 Antonio Penta, Gianluca Quercini, Chantal Reynaud and Nigel Shadbolt 495  ${\it Self-Assessing\ Agents\ for\ Explaining\ Language\ Change:\ A\ Case\ Study\ in\ German}$ Remi van Trijp Session 6C: Cooperation and Coordination 274  ${\it Efficient\ Norm\ Emergence\ through\ Experiential\ Dynamic\ Punishment}$ Samhar Mahmoud, Nathan Griffiths, Jeroen Keppens and Michael Luck Partial Cooperation in Multi-agent Local Search 221 Alon Grubshtein, Roie Zivan and Amnon Meisels Conservative Social Laws 111 Thomas Ågotnes, Wiebe van der Hoek and Michael Wooldridge Approximate Tradeoffs on Matroids 203

Laurent Gourvès, Jérôme Monnot and Lydia Tlilane
An approach to multi-agent planning with incomplete information

Alejandro Torreneo, Eva Onaindia and Óscar Sapena

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Controlling Candidate-Sequential Elections

|                       | Session 6D: Constraint Satisfaction, Optimisation and Programming   |
|-----------------------|---|
| 149                   | Joint Assessment and Restoration of Power Systems Pascal Van Hentenryck, Nabeel Gillani and Carleton Coffrin  |
| 309                   | An O(n log n) BC Algorithm for the Conjunction of an alldifferent and a linear inequality Nicolas Beldiceanu, Mats Carlsson, Thierry Petit and Jean-Charles Régin                   |
| 498                   | A Path-Optimal GAC Algorithm for Table Constraints Christophe Lecoutre, Chavalit Likitvivatanavong and Roland H. C. Yap   |
| 28                    | Here, There, but Not Everywhere: An Extended Framework for Qualitative Constraint Satisfaction  |
| 108                   | Weiming Liu and Sanjiang Li<br>Deciding Membership in a Class of Polyhedra  |
|                       | Salvatore Ruggieri  |
| 74                    | Session 6E1: Automated Reasoning Implementing and Evaluating Provers for First-order Modal Logics   |
| 198                   | Christoph Benzmüller, Jens Otten and Thomas Raths  Efficient Reasoning in Multiagent Epistemic Logics   |
|                       | Gerhard Lakemeyer and Yves Lespérance   |
| 482                   | Knowledge-Based Programs as Plans: The Complexity of Plan Verification Jérôme Lang and Bruno Zanuttini  |
|                       | Session 6E1: Frontiers in Al  |
|                       | (Frontiers in AI) Recent Advances in Imprecise-Probabilistic Graphical Models  Gert de Cooman, Jasper De Bock and Arthur Van Camp   |
|                       | (Frontiers in AI) Developmental Mechanisms for Autonomous Life-Long Learning in Robots Pierre-Yves Oudeyer  |
| Lunch                 | Lunch   |
|                       |   |
| FRIDAY<br>14:30-16:30 | Session 7A: Frontiers in Al  (Frontiers in Al) Executable Logic for Dialogical Argumentation  |
|                       | Elizabeth Black and <b>Anthony Hunter</b> (Frontiers in AI) Computational Creativity: The Final Frontier?   |
|                       | Simon Colton and Geraint A. Wiggins (Frontiers in AI) Lifted Probabilistic Inference  |
|                       | Kristian Kersting<br>(Frontiers in AI) Robot Skill Learning   |
|                       | Jan Peters, Katharina Mülling, Jens Kober, Duy Nguyen-Tuong and Oliver Krömer   |
|                       | Session 7B: Preferences   |
| 490                   | The Possible Winner Problem with Uncertain Weight Dorothea Baumeister, Magnus Roos, Jörg Rothe, Lena Schend and Lirong Xia  |
| 91                    | Bounded single-peaked width and proportional representation  Denis Cornaz, Lucie Galand and Olivier Spanjaard   |
| 185                   | Fair Division of Indivisible Goods under Risk<br>Charles Lumet, Sylvain Bouveret and Michel Lemaître  |
| 255                   | Justifying Dominating Options when Preferential Information is Incomplete Christophe Labreuche, Nicolas Maudet and Wassila Ouerdane   |
| 368                   | Importance-based Semantics of Polynomial Comparative Preference Inference   |
|                       | Nic Wilson  |
| 397                   | Session 7C: Natural Language Processing (2) Preference Extraction From Negotiation Dialogues  |
| 449                   | Anaïs Cadilhac, Nicholas Asher, Farah Benamara, Vladimir Popescu and Mohamadou Seck<br>Relation Mining in the Biomedical Domain using Entity-level Semantics                        |
| 117                   | Kateryna Tymoshenko, Swapna Somasundaran, Vinodkumar Prabhakaran and Vinay Shet<br>Disambiguating Road Names in Text Route Descriptions using Exact-All-Hop Shortest Path Algorithm |
|                       | Xiao Zhang, Baojun Qiu, Prasenjit Mitra, Sen Xu, Alexander Klippel and Alan M. MacEachren   |
| 422                   | Combining Bootstrapping and Feature Selection for Improving a Distributional Thesaurus Olivier Ferret   |
| 279                   | Using Learning to Rank Approach for Parallel Corpora Based Cross Language Information Retrieval<br>Hosein Azarbonyad, Azadeh Shakery and Heshaam Faili                              |
|                       | Session 7D: Planning (2)  |
| 493                   | Symbolic A* Search with Pattern Databases and the Merge-and-Shrink Abstraction<br>Stefan Edelkamp, Peter Kissmann and Álvaro Torralba   |
| 519                   | ArvandHerd: Parallel Planning with a Portfolio<br>Richard Valenzano, Hootan Nakhost, Martin Müller, Jonathan Schaeffer and Nathan Sturtevant  |
| 281                   | Width and Serialization of Classical Planning Problems  |
| 367                   | Nir Lipovetzky and Hector Geffner Case-based Planning for Problems with Real-valued Fluents: Kernel Functions for Plan Retrieval  |
| 445                   | Alfonso E. Gerevini, Alessandro Saetti and Ivan Serina Tunneling and Decomposition-Based State Reduction for Optimal Planning   |
|                       | Raz Nissim, Udi Apsel and Ronen Brafman   |
| 336                   | Session 7E:Reinforcement Learning Argumentation-Based Reinforcement Learning for RoboCup Soccer Keepaway  |
| 87                    | Yang Gao, Francesca Toni and Robert Craven<br>A Reinforcement-Learning Algorithm for Sampling Design in Markov Random Fields  |
| 297                   | Mathieu Bonneau, Nathalie Peyrard and Régis Sabbadin  Heuristically Accelerated Reinforcement Learning: Theoretical and Experimental Results  |
|                       | Reinaldo A. C. Bianchi, Carlos H. C. Ribeiro and Anna H. R. Costa   |
| 557                   | Towards Generalizing the Success of Monte-Carlo Tree Search beyond the Game of Go<br>António Gusmão and Tapani Raiko  |
| 577                   | Nested Monte-Carlo Tree Search for Online Planning in Large MDPs<br>Hendrik Baier and Mark H. M. Winands  |
|                       | Session 7F: Game-theoretic and Economic Foundations   |
| 551                   | An Anytime Algorithm for Finding the epsilon-Core in Nontransferable Utility Coalitional Games  |

|             | Greg Hines, Talal Rahwan and Nicholas R. Jennings   |
|-------------|---|
| 144         | Delegating Decisions in Strategic Settings  |
|             | Sarit Kraus and Michael Wooldridge  |
| 245         | Hard and Easy k-Typed Compact Coalitional Games: The Knowledge of Player Types Marks the Boundary   |
|             | Gianluigi Greco, Antonella Guzzo and Luigi Pontieri   |
| 540         | Iterative Algorithm for Solving Two-player Zero-sum Extensive-form Games with Imperfect Information |
|             | Branislav Bosansky, Christopher Kiekintveld, Viliam Lisy and Michal Pechoucek                       |
| 508         | A Robust Approach to Addressing Human Adversaries in Security Games                                 |
|             | James Pita, Richard John, Rajiv Maheswaran, Milind Tambe and Sarit Kraus                            |
|             |   |
|             |   |
| 16:30-17.00 | CLOSING SESSION   |
|             |   |

Regular Talks will be 25min (i.e. 20 min talk + 5 min questions) Frontiers Talks will be 30 min (i.e. 25 min talk + 5 min questions) Talks in the Anniversary and Turing Session will be 40 min (i.e. 30 min talk + 10 min questions)