PROGRAMME

IJCAI - 05

NINETEENTH INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE



EDINBURGH, SCOTLAND 30 JULY – 5 AUGUST 2005

www.ijcai-05.org

Sponsored by: Hosted by: In Collaboration with: In Partnership with: INTERNATIONAL JOINT CONFERENCES ON ARTIFICIAL INTELLIGENCE (IJCAI)
THE BRITISH COMPUTER SOCIETY SPECIALIST GROUP ON ARTIFICIAL INTELLIGENCE
THE SCHOOL OF INFORMATICS, UNIVERSITY OF EDINBURGH
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WELCOME TO IJCAI-05

Dear Attendees,

We are very pleased to welcome you all to IJCAI-05 and Edinburgh. We have put together an excellent technical program and exciting social events. We hope you will find IJCAI-05 to be a pleasant experience through significant technical and social interactions with your fellow AI researchers and practitioners from around the world. Edinburgh, the capital city of Scotland, is a city filled with historical sights and stories and hosts the world-famous Edinburgh International Festival immediately after IJCAI-05. It will be a very busy but enjoyable week.

IJCAI-05, the Nineteenth International Joint Conference on Artificial Intelligence, is sponsored by the International Joint Conferences on Artificial Intelligence (IJCAI) and hosted by The British Computer Society Specialist Group on Artificial Intelligence and the School of Informatics, The University of Edinburgh and in Partnership with the British Computer Society and Scottish Enterprise.

IJCAI sponsors biennial conferences on Artificial Intelligence, which are the premier forums for presenting AI research results to the international AI community. Previous conference sites were Washington D.C., USA(1969), London, England (1971), Stanford, California, USA(1973), Tbilisi, Georgia, USSR (1975), Cambridge, Massachusetts, USA (1977), Tokyo, Japan (1979), Vancouver, British Columbia, Canada (1981), Karlsruhe, Germany (1983), Los Angeles, California, USA (1985), Milan, Italy (1987), Detroit, Michigan, USA (1989), Sydney, Australia (1991), Chambery, Savoie, France (1993), Montreal, Canada (1995), Nagoya, Japan (1997), Stockholm, Sweden (1999), Seattle, Washington, USA (2001) and Acapulco, Mexico (2003). IJCAI-07 will be held in Hyderabad, India during January 6-12, 2007.

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IJCAI-05 AWARDS

The IJCAI-05 Award for Research Excellence and the Computers and Thought Award are awarded by the IJCAI Board of Trustees, upon recommendation by the IJCAI-05 Awards Selection Committee, which consists this year of

Luigia Carlucci Aiello (Chair), Università di Roma "La Sapienza" (Italy)

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The IJCAI Awards Selection Committee receives advice from members of the IJCAI-05 Awards Review Committee, who comment on the accuracy of the nomination material and provide additional information about the nominees. The IJCAI-05 Awards Review Committee is the union of the former Trustees of IJCAI, the IJCAI-05 Advisory Committee, the Program Chairs of the last three IJCAI conferences, and the past recipients of the IJCAI Award for Research Excellence and the IJCAI Distinguished Service Award, with nominees excluded.

IJCAI-05 Award for Research Excellence

The IJCAI Award for Research Excellence is presented at IJCAI conferences to a scientist who has carried out a program of consistently high quality AI research, yielding several substantial results. Previous recipients have been John McCarthy (1985), Allen Newell (1989), Marvin Minsky (1991), Raymond Reiter (1993), Herbert Simon (1995), Aravind Joshi (1997), Judea Pearl (1999), Donald Michie (2001) and Nils Nilsson (2003).

The winner of the 2005 IJCAI Award for Research Excellence is Professor Geoffrey Hinton, who holds a Canada Research Chair at the University of Toronto and directs the program in Neural Computation and Adaptive Perception at the Canadian Institute for Advanced Research. Professor Hinton is recognised for his fundamental work in the areas of computational neuroscience and cognitive neuroscience, and its impact on Machine Learning and Artificial Intelligence. In particular, he has made pioneering contributions in defining a computational theory of perceptual inference, distributed representations and learning in neural networks. Prof. Hinton will present his Research Excellence Lecture on Thursday, August 4 2005 at 1745 hours in the Pentland Auditorium.

Donald E. Walker Distinguished Service Award

The IJCAI Distinguished Service Award was established in 1979 by the IJCAII Trustees to honour senior scientists in AI for contributions and service to the field during their careers. Previous recipients have been Bernard Meltzer (1979), Arthur Samuel (1983), Donald Walker (1989), Woodrow Bledsoe (1991), Daniel G. Bobrow (1993), Wolfgang Bibel (1999), Barbara Grosz (2001) and Alan Bundy (2003).

In 1993, the IJCAI Distinguished Service Award was renamed the Donald E. Walker Distinguished Service Award in memory of the late Donald E. Walker, who shaped the IJCAII organisation as a Secretary-Treasurer.

At IJCAI-05, the Donald E. Walker Distinguished Service Award will be given to Raj Reddy, Mozah Bint Nasser University Professor of Computer Science and Robotics in the School of Computer Science at Carnegie Mellon University. As a pioneering researcher in Al and Human-Computer Interaction, Professor Reddy is recognised for his outstanding service to the AI community as President of AAAI, Conference Chair of IJCAI-79, and his leadership and promotion of Al internationally.

IJCAI-05 Distinguished Paper Awards

The IJCAI-05 Distinguished Paper Awards will be given to

Doug Downey, Oren Etzioni, and Stephen Soderland of the University of Washington, USA for their paper titled A Probabilistic Model of Redundancy in Information Extraction [to be presented at 1530 hours on Tuesday 2 August]

- Yuhong Guo, Russell Greiner, and Dale Schuurmans of the University of Alberta, Canada for their paper titled Learning Coordination Classifiers [to be presented at 1530 hours Thursday 4 August] and to
- Jonathan Schaeffer, Yngvi Björnsson, Neil Burch, Akihiro Kishimoto, Martin Müller, Robert Lake, Paul Lu, and Steve Sutphen of the University of Alberta, Canada for their paper titled Solving Checkers [to be presented at 1030 hours Tuesday 2 Augustl



PROGRAMME GUIDE

The IJCAI-05 Conference is composed of various complementary programmes:

- The Technical Programme, Tues 2 Fri 5 Aug 2005, including the technical paper presentations by top scientists in the field, invited speakers and award winners.
- The Technical Poster Programme, Tues 2 Aug from 1730-1930 hrs
- The Tutorial Programme, Sat 30 Sun 31 Jul
- The Workshop Programme, Saturday 30 Jul Mon 1 Aug
- The Technology Exchange Exhibition and Trading Agents Competition, Tues 2 - Fri 5 Aug



CO-LOCATING EVENTS

There are a number of co-locating events to be held prior to and after IJCAI-05. A full listing can be found on the web site www.ijcai-05.org

Special sessions of short invited talks given by representatives from the co-locating events are scheduled for 1030 hours on Tuesday 2 August and Wednesday 3 August.



SGAI: THE SPECIALIST GROUP ON ARTIFICIAL INTELLIGENCE

SGAI (www.bcs-sgai.org) is the national AI society responsible for hosting IJCAI-05. It is part of the British Computer Society and has been a member of ECCAI since 1992. SGAI was founded in 1980 by British Al pioneer Donald Michie and has played a substantial role in the development of the field in Britain over the last 25 years. It is probably best known for its long-running annual series of conferences (Al-200x) held in Cambridge each December and as the host of the annual BCS prize competition for 'Progress towards Machine Intelligence'. SGAI is proud to have been given the opportunity in its 25th anniversary year to bring IJCAI back to Britain for the first time since 1971. The conference represents the culmination of a great deal of planning and hard work for many people. We hope you enjoy it.

Max Bramer, Chair SGAI Ann Macintosh, Vice-Chair SGAI



EDINBURGH, SCOTLAND

Edinburgh, the Capital City of Scotland is a city filled with historical sights and stories. The Old Town was developed from the 11th century, originally within defensive walls, around the rock on whose peak is situated the famed Edinburgh Castle. From here, the historic Royal Mile sweeps down to the Palace of Holyrood House, the Queen's official royal residence in Scotland. The new Scottish Parliament building is also situated near Holyrood House at the bottom of the Royal Mile. There are also many art galleries located around the city.

Princes Street and George Street are the main shopping areas in the city centre and there are a large number of restaurants in the city centre. An essential guide of Edinburgh is included in participant bags to provide further information about the city.

Edinburgh International Festival

The world-famous Edinburgh International Festival (www.eif.co.uk) and Fringe (www.edfringe.com) start on 6 August 2005.

> CONFERENCE AT A GLANCE

Day	Morning	Afternoon	Evening
Saturday 30 July	Registration Workshops Tutorials		
Sunday 31 July	Registration Workshops Tutorials		
Monday 1 August	Registration Workshops		Opening Ceremony & Reception
Tuesday 2 August	Registration Technical Programme Technology Exchange and Exhibition, TAC		Technical Poster Session
Wednesday 3 August	Registration Technical Programme Technology Exchange and Exhibition, TAC		Conference Banquet
Thursday 4 August	Registration Technical Programme Technology Exchange and Exhibition, TAC		Research Excellence Award Lecture
Friday 5 August	Registration Technical Programme Technology Exchange and Exhibition, TAC		

> TUTORIAL PROGRAMME

The tutorials will be held at the University of Edinburgh. Tutorial Chair: Robert Givan

SATURDAY 30 JULY

0900 - 1230

11	Grammar Induction: Techniques and Applications	Adam Ferguson G19
T2	Automated Reasoning in First-Order Logic	Adam Ferguson G17
Т3	Techniques for Computing and Using Bounds for Combinatorial Optimization Problems	Adam Ferguson G13
T4	Reductions for Machine Learning	Adam Ferguson G10

1400 - 1730

Т5	Constraint Processing	Adam Ferguson G17
Т6	Representation, Inference and Learning in Relational Probabilistic Languages	Adam Ferguson G10
Т7	Planning: Techniques for Efficient State-Space Traversal	Adam Ferguson G13
T8	Preference Models and Applications	Adam Ferguson G19

0900 - 1730

Т9	Representation and Learning in Robots and Animals (Day 1 of 2)	David Hume Tower Faculty Room
		North

SUNDAY 31 JULY

0900 - 1730

Т9	Representation and Learning in Robots and Animals (Day 2 of 2)	David Hume Tower Faculty Room North
T10	Principles of Al Problem Solving	David Hume Tower Faculty Room South

0900 - 1230

T11	Text Analytics: Theory and Practice	Adam Ferguson G19
T12	Multiagent Planning: a Survey of Research and Applications	Adam Ferguson G10
T13	Models of Argumentation and Dialogue in Al	Adam Ferguson G13

1400 - 1730

T14	Collaborative Multiagent Systems	Adam Ferguson G10
T15	Modelling Language Origins and Evolution	Adam Ferguson G13
T16	Market Clearing Algorithms	Adam Ferguson G17
T17	Distributed Constraint Reasoning	Adam Ferguson G19



WORKSHOP PROGRAMME

The workshops will take place at the University of Edinburgh from Saturday 30 July to Monday 1 August 2005.

Workshop Chair: Carlos Guestrin

SATURDAY 30 JULY

W2	Agents Applied in Health Care Antonio Moreno	David Hume Tower Faculty Room South
W3	Agents in Real-Time and Dynamic Environments Ubbo Visser	William Robertson Building G01
W5	Computational Creativity Pablo Gervás, Tony Veale and Alison Pease	William Robertson Building G02
W6	Computational Models of Natural Argument Chris Reed	William Robertson Building G03
W7	Configuration Deitmar Jannach	William Robertson Building G04
W8	Distributed Constraint Reasoning Amnon Meisels	William Robertson Building G08
W14	Knowledge and Reasoning for Answering Questions Farah Benemara, Patrick Saint-Dizier and Marie-Francine Moens	William Robertson Building G09
W17	Modelling Others from Observations Christopher Geib and Gal Kaminka	William Robertson Building G11
W19	Model-Based Systems Claudia Picardi	David Hume Tower Conference Room
W24	Reasoning with Uncertainty in Robotics Nikos Vlassis, Geoff Gordon and Joelle Pineau	William Robertson Building G10

SUNDAY 31 JULY

W1	Advances in Preference Handling (Day 1 of 2) Ronan Brafman and Ulrich Junker	William Robertson Building G01
W4	Al and Autonomic Communications Roy Sterritt	William Robertson Building G03
W9	Game Theoretic and Decision Theoretic Agents Piotr Gmytrasiewicz and Simon Parsons	William Robertson Building G10
W10	Grammatical Inference Applications: Successes and Future Challenges Colin de la Higuera and Menno Van Zaanen	William Robertson Building G04
W18	Modelling and Solving Problems with Constraints Zeynep Kiziltan	William Robertson Building G02
W20	Multi-Agent Information Retrieval and Recommender Systems Esma Aimeur	David Hume Tower Conference Room
W25	Reasoning, Representation and Learning in Computer Games David W. Aha, Héctor Muñoz-Avila and Michael Van Lent	William Robertson Building G08
W26	Spatial and Temporal Reasoning Hans W. Guesgen	William Robertson Building G09
W29	Modelling and Retrieval of Context (Day 1 of 2) Stefan Schulz, David B. Leake and Thomas R. Roth-Berghofer	William Robertson Building G11

MONDAY 1 AUGUST

W1	Advances in Preference Handling (Day 2 of 2) Ulrich Junker	William Robertson Building G01
W11	Intelligent Techniques for Web Personalization Sarabjot Singh Anand and Bamshad Mobasher	David Hume Tower Conference Room
W12	Knowledge Management and Organisational Memories Rose Dieng-Kuntz and Nada Matta	William Robertson Building G09
W13	Knowledge and Reasoning in Practical Dialogue Systems Ingrid Zukerman, Jan Alexandersson and Arne Jönsson	William Robertson Building G10
W15	Logic and Communication in Multi-Agent Systems Alessio Lomuscio and Wiebe van der Hoek	William Robertson Building G03
W22	Neural-Symbolic Learning and Reasoning Artur d'Avila Garcez, Jeff Elman and Pascal Hitzler	William Robertson Building G04
W23	Nonmonotonic Reasoning, Action and Change Leora Morgenstern and Maurice Pagnucco	William Robertson Building G02
W27	Trading Agent Design and Analysis Michael Wellman and Sverker Janson	David Hume Tower Faculty Room North
W28	Graduate Career Development Workshop for Women in Computing Research Ursula Martin	David Hume Tower Faculty Room South
W29	Modelling and Retrieval of Context (Day 2 of 2) Stefan Schulz, David B. Leake and Thomas R. Roth-Berghofer	William Robertson Building G11
W30	Planning and Learning in a Priori Unknown or Dynamic Domains Vadim Bulitko and Sven Koenig	William Robertson Building G08



INVITED SPEAKERS

Prof Andrew Blake

Microsoft Research Cambridge, UK "Visual Tracking of Objects in Motion"

Prof Adnan Darwiche

Computer Science Department, University of California at Los Angeles

"The Quest for Efficient Probabilistic Inference"

Prof Nir Friedman

School of Computer Science and Engineering, Hebrew University, Jerusalem

"Understanding Molecular Regulatory Mechanisms"

Prof Alison Gopnik

Department of Psychology, University of California at Berkeley "Babies and Bayes Nets: Causal Inference in Computers and Children"

Prof Stephen Jacobsen

University of Utah, and Sarcos Research Corporation "Designing Robots: From Artificial Limbs to Powerful, Energetic, Autonomous Humanoids"

Dr Kevin Knight

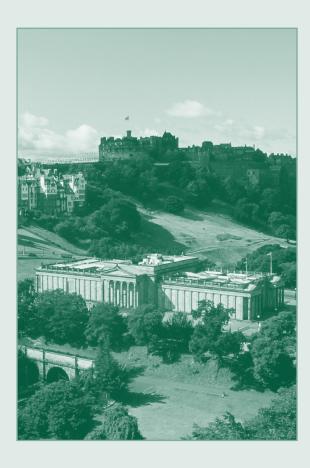
USC/Information Sciences Institute
"What's New in Statistical Machine Translation"

Prof Bart Selman

Department of Computer Science, Cornell University "The Next Generation of Automated Reasoning Methods"

Prof Daniel Wolpert

Institute of Neurology, University College London "Probabilistic Models of Human Sensorimotor Control"













> TECHNICAL PROGRAMME

The IJCAI-05 Technical Programme will be held in the Edinburgh International Conference Centre. Programme Chair: Leslie Pack Kaelbling

TUESDAY 2ND AUGUST

Time	Pentland	Sidlaw	Fintry	Tinto
9:00 - 10:00	Invited Speaker: Alison Gopnik, Session Chair: Judea Pearl			
10:30 - 12:30	Game Search, Session Chair: Toby Walsh	Relational Learning, Session Chair: Pedro Domingos	Reasoning About Action 1, Session Chair: Shlomo Zilberstein	Satisfiability, Session Chair: Bart Selman
	Solving Checkers; J. Schaeffer, Y. Björnsson, N. Burch, A. Kishimoto, M. Müller, R. Lake, P. Lu and S. Sutphen	Generative Modeling with Failure in PRISM; Taisuke Sato, Yoshitaka Kameya and Neng-Fa Zhou	Updating Action Domain Descriptions; Thomas Eiter, Esra Erdem, Michael Fink and Ján Senko	DPLL with a Trace: From SAT to Knowledge Compilation; Jinbo Huang and Adnan Darwiche
	Game-Tree Search with Combinatorially Large Belief States; Austin Parker, Dana Nau and V. S. Subrahmanian	View Learning for Statistical Relational Learning: With an Application to Mammography; Jesse Davis, Elizabeth Burnside, Inês Dutra, David Page, Raghu Ramakrishnan, Vitor Santos Costa and Jude Shavlik	Semantics for a useful fragment of the situation calculus; Gerhard Lakemeyer and Hector J. Levesque	Three Truth Values for the SAT and MAX-SAT Problems; Frédéric Lardeux, Frédéric Saubion and Jin-Kao Hao
	Efficient belief-state AND-OR search, with application to Kriegspiel; Stuart Russell and Jason Wolfe	A Simple-Transition Model for Relational Sequences; Alan Fern	Planning with Loops; Hector J. Levesque	A Simple Model to Generate Hard Satisfiable Instances; Ke Xu, Frédéric Boussemart, Fred Hemery and Christophe Lecoutre
	Why Minimax Works: An Alternative Explanation; Mitja Lustrek, Matjaz Gams, and Ivan Bratko	Inferring Useful Heuristics from the Dynamics of Iterative Relational Classifiers; Aram Galstyan and Paul R. Cohen	Representing Flexible Temporal Behaviors in the Situation Calculus; Alberto Finzi and Fiora Pirri	Phase Transitions of Dominating Clique Problem and Their Implications to Heuristics in Satisfiability Search; Joseph Culberson, Yong Gao and Calin Anton
12:30 - 14:00	Lunch Break			
14:00 - 15:00	Invited Speaker: Andrew Blake, Session Chair: David Hogg			
15:30 - 17:30	Information Extraction, Session Chair: Andrew McCallum	Learning and Knowledge, Session Chair: Lorenza Saitta	Reasoning About Action 2, Session Chair: Michael Thielscher	Local Search, Session Chair: Bart Selman
	A Probabilistic Model of Redundancy in Information Extraction; Doug Downey, Oren Etzioni and Stephen Soderland	Exploiting Background Knowledge for Knowledge- Intensive Subgroup Discovery; Martin Atzmueller, Frank Puppe and Hans-Peter Buscher	Tractable Reasoning with Incomplete First-Order Knowledge in Dynamic Systems with Context-Dependent Actions; Yongmei Liu and Hector J. Levesque	Efficient Stochastic Local Search for MPE Solving; Frank Hutter, Holger H. Hoos and Thomas Stützle
	Shallow Semantics for Relation Extraction; Sanda Harabagiu, Cosmin Adrian Bejan and Paul Morarescu	Training without data: Knowledge Insertion into RBF Neural Networks; Ken McGarry and Stefan Wermter	Goal Change; Steven Shapiro, Yves Lespérance and Hector J. Levesque	The COMPSET Algorithm for Subset Selection; Yaniv Hamo and Shaul Markovitch
	Semantic annotation of unstructured and ungrammatical text; Matthew Michelson and Craig A. Knoblock	A flexible and robust similarity measure based on contextual probability; Hui Wang and Werner Dubitzky	From knowledge-based programs to graded belief- based programs, part II: off-line reasoning; Noël Laverny and Jérôme Lang	Applying Local Search to Disjunctive Temporal Problems; Michael D. Moffitt and Martha E. Pollack
	Semantic Argument Classification Exploiting Argument Interdependence; Zheng Ping Jiang, Jia Li and Hwee Tou Ng	Unsupervised Learning of Semantic Relations between Concepts of a Molecular Biology Ontology; Massimiliano Ciaramita, Aldo Gangemi, Esther Ratsch, Jasmin Saric and Isabel Rojas	Iterated Belief Change: A Transition System Approach; Aaron Hunter and James P. Delgrande	

Moorfoot	Kilsyth	Harris	Carrick	Ochil
Discourse Modeling and Temporal Reasoning, Session Chair: Hwee Tou Ng	Planning Under Uncertainty, Session Chair: Carlos Guestrin	Vision, Session Chair: Enrique Sucar	User Interface and Modeling, Session Chair: Ingrid Zukerman	Reports from Co-Located Events 1, Session Chair: Alan Bundy
Temporal Context Representation and Reasoning; Dan Moldovan, Christine Clark and Sanda Harabagiu	Probabilistic Reasoning for Plan Robustness; Steve R. Schaffer, Bradley J. Clement and Steve A. Chien	Combining Structural Descriptions and Image-based Representations for Image, Object, and Scene Recognition; Nicolas Do Huu, Williams Paquier and Raja Chatila	Dynamically Constructed Bayes Nets for Multi-Domain Sketch Understanding; Christine Alvarado and Randall Davis	International Conference on Artificial Intelligence in Education; Gord McCalla
TimeML-Compliant Text Analysis for Temporal Reasoning; Branimir Boguraev and Rie Kubota Ando	Planning with Continuous Resources in Stochastic Domains; Mausam, Emmanuel Benazera, Ronen Brafman, Nicolas Meuleau and Eric A. Hansen	2D Shape Classification and Retrieval; Graham McNeill and Sethu Vijayakumar	Clinical-Reasoning Skill Acquisition through Intelligent Group Tutoring; Siriwan Suebnukarn and Peter Haddawy	European Workshop on Natural Language Generation; Ehud Reiter
Viewing Referring Expression Generation as Search; Bernd Bohnet and Robert Dale	Proactive Algorithms for Scheduling with Probabilistic Durations; J. Christopher Beck and Nic Wilson	Inferring Image Templates from Classification Decisions; Arnab Dhua and Florin Cutzu	A Live-User Evaluation of Collaborative Web Search; Barry Smyth, Evelyn Balfe, Oisin Boydell, Keith Bradley, Peter Briggs, Maurice Coyle and Jill Freyne	International Conference on Uncertainty in AI; Faheim Bacchus
Automatic Evaluation of Text Coherence: Models and Representations; Mirella Lapata and Regina Barzilay	Conditional Planning in the Discrete Belief Space; Jussi Rintanen	Compound Effects of Top-down and Bottom-up Influences on Visual Attention During Action Recognition; Bassam Khadhouri and Yiannis Demiris	You Are Wrong! - Automatic Detection of Interaction Errors from Brain Waves; Pierre W. Ferrez and José del R. Millán	International Workshop on Description Logics; Carsten Lutz
				Symposium on Abstraction, Reformulation and Approximation; Berthe Choueiry
				Workshop on Automated Reasoning; Jacques Fleuriot
Quantified CSP, Session Chair: Adnan Darwiche	Markov Decision Processes, Session Chair: Jeff Rosenschein	Robot Perception and Learning, Session Chair: Raja Chatila	Bayesian and Theoretical Learning, Session Chair: Dan Roth	
The Complexity of Quantified Constraint Satisfaction Problems under Structural Restrictions; Georg Gottlob, Gianluigi Greco and Francesco Scarcello	Stationary Deterministic Policies for Constrained MDPs with Multiple Rewards, Costs and Discount Factors; Dmitri Dolgov and Edmund Durfee	Maintaining Coherent Perceptual Information Using Anchoring; Amy Loutfi, Silvia Coradeschi and Alessandro Saffiotti	Exploiting Informative Priors for Bayesian Classification and Regression Trees; Nicos Angelopoulos and James Cussens	
QCSP-Solve: A Solver for Quantified Constraint Satisfaction Problems; Ian P. Gent, Peter Nightingale and Kostas Stergiou	Bounded Policy Iteration for Decentralized POMDPs; Daniel S. Bernstein, Eric A. Hansen and Shlomo Zilberstein	Relational Object Maps for Mobile Robots; Benson Limketkai, Lin Liao and Dieter Fox	Generalization Error of Linear Neural Networks in an Empirical Bayes Approach; Shinichi Nakajima and Sumio Watanabe	
Extracting Certificates from Quantified Boolean Formulas; Marco Benedetti	Solving POMDPs with Continuous or Large Discrete Observation Spaces; Jesse Hoey and Pascal Poupart	Learning Forward Models for Robots; Anthony Dearden and Yiannis Demiris	Generalization Bounds for Weighted Binary Classification with Applications to Statistical Verification; Vu Ha and Tariq Samad	
A Model for Generating Random Quantified Boolean Formulas; Hubie Chen and Yannet Interian	Algebraic Markov Decision Processes; Patrice Perny, Olivier Spanjaard and Paul Weng	Learning Partially Observable Deterministic Action Models; Eyal Amir	Phase Transitions within Grammatical Inference; Nicolas Pernot, Antoine Cornuéjols and Michèle Sebag	

WEDNESDAY 3RD AUGUST

Time	Pentland	Sidlaw	Fintry	Tinto
9:00 - 10:00	Invited Speaker: Nir Friedman,			
	Session Chair: Craig Boutilier			
10:30 - 12:30	Logic and Probability, Session Chair: David Poole	Reinforcement learning, Session Chair: Ronen Brafman	Search, Session Chair: Makoto Yokoo	Description Logic, Session Chair: Peter Patel-Schneider
	Encoding formulas with partially constrained weights in a possibilistic-like many-sorted propositional logic; Salem Benferhat and Henri Prade	Reinforcement Learning in POMDPs Without Resets; Eyal Even-Dar, Sham M. Kakade and Yishay Mansour	Limited Discrepancy Beam Search; David Furcy and Sven Koenig	Pushing the EL Envelope; Franz Baader, Sebastian Brandt and Carsten Lutz
	Asymptotic Conditional Probability in Modal Logic: A Probabilistic Reconstruction of Nonmonotonic Logic; Riccardo Rosati and Georg Gottlob	Concurrent Hierarchical Reinforcement Learning; Bhaskara Marthi, Stuart Russell, David Latham and Carlos Guestrin	Decentralized Search in Networks Using Homophily and Degree Disparity; Özgür Simsek and David Jensen	On the Interaction between Inverse Features and Path- functional Dependencies in Description Logics; David Toman and Grant Weddell
	Lifted First-Order Probabilistic Inference; Rodrigo de Salvo Braz, Eyal Amir and Dan Roth	Learning against opponents with bounded memory; Rob Powers and Yoav Shoham	AND/OR Branch-and-Bound for Graphical Models; Radu Marinescu and Rina Dechter	Ordering Heuristics for Description Logic Reasoning; Dmitry Tsarkov and Ian Horrocks
	BLOG: Probabilistic Models with Unknown Objects; Brian Milch, Bhaskara Marthi, Stuart Russell, David Sontag, Daniel L. Ong and Andrey Kolobov	Two-Sided Bandits and the Dating Market; Sanmay Das and Emir Kamenica		A Formal Investigation of Mapping Language for Terminological Knowledge; Luciano Serafini, Heiner Stuckenschmidt and Holger Wache
12:30 - 14:00	Lunch Break			
14:00 - 15:00	Invited Speaker: Adnan Darwiche, Session Chair: Hector Geffner			
15:30 - 17:30	Constraint Programming, Session Chair: Eugene Freuder	Spatio-Temporal Learning, Session Chair: Peter Stone	Ontologies, Session Chair: Deborah McGuiness	Graphical Models, Session Chair: Stuart Russell
	Propagating Logical Combinations of Constraints; Fahiem Bacchus and Toby Walsh	Location-Based Activity Recognition using Relational Markov Networks; Lin Liao, Dieter Fox and Henry Kautz	A Tableaux Decision Procedure for SHOIQ; Ian Horrocks and Ulrike Sattler	Identifiability of Path-Specific Effects; Chen Avin, Ilya Shpitser and Judea Pearl
	The Range and Roots Constraints: Specifying Counting and Occurrence Problems; Christian Bessiere, Emmanuel Hebrard, Brahim Hnich, Zeynep Kiziltan and Toby Walsh	A Hybrid Discriminative/ Generative Approach for Modeling Human Activities; Jonathan Lester, Tanzeem Choudhury, Nicky Kern, Gaetano Borriello and Blake Hannaford	Aspects of Distributed and Modular Ontology Reasoning; Luciano Serafini, Alex Borgida and Andrei Tamilin	Sensitivity Analysis in Markov Networks; Hei Chan and Adnan Darwiche
	The Rules of Constraint Modelling; Alan M. Frisch, Chris Jefferson, Bernadette Martínez-Hernández and Ian Miguel	A Multi-Objective Multi-Modal Optimization Approach for Mining Stable Spatio-Temporal Patterns; Michèle Sebag, Nicolas Tarrisson, Olivier Teytaud, Julien Lefevre and Sylvain Baillet	Computational ontologies of parthood, componenthood, and containment; Thomas Bittner and Maureen Donnelly	Probabilistic Reasoning with Hierarchically Structured Variables; Rita Sharma and David Poole
	Bin-Completion Algorithms for Multicontainer Packing and Covering Problems; Alex S. Fukunaga and Richard E. Korf	Mining Spatial Object Associations for Scientific Data; Hui Yang, Srinivasan Parthasarathy and Sameep Mehta	Reasoning with Inconsistent Ontologies; Zhisheng Huang, Frank van Harmelen and Annette ten Teije	AND/OR Cutset Conditioning; Robert Mateescu and Rina Dechter

Moorfoot	Kilsyth	Harris	Carrick	Ochil
Learning for Parsing, Session Chair: Mirela Lapata	Structure in CSPs, Session Chair: Pedro Meseguer	Swarm Robotics, Session Chair: Raja Chatila	Knowledge Engineering and Applications, Session Chair: Alankar Karol	Reports from Co-Located Events and ECCAI Award, Session Chair: Shlomo Zilberstein
Learning and Inference over Constrained Output; Vasin Punyakanok, Dan Roth, Wen-tau Yih and Dav Zimak	A Unified Theory of Structural Tractability for Constraint Satisfaction and Spread Cut Decomposition; David Cohen, Peter Jeavons and Marc Gyssens	Collective AI: context awareness via communication; S. Kornienko, O. Kornienko and P. Levi	Analysis and Verification of Qualitative Models of Genetic Regulatory Networks: A Model- Checking Approach; Grégory Batt, Delphine Ropers, Hidde de Jong, Johannes Geiselmann, Radu Mateescu, Michel Page and Dominique Schneider	ECCAI Dissertation Award Talk: Symmetry Breaking Ordering Constraints; Zeynep Kiziltan
A Two-Stage Method for Active Learning of Statistical Grammars; Markus Becker and Miles Osborne	Breaking symmetries in all different problems; Jean-François Puget	Building Patterned Structures with Robot Swarms; Justin Werfel, Yaneer Bar-Yam and Radhika Nagpal	Supervaluation Semantics for an Inland Water Feature Ontology; Paulo Santos, Brandon Bennett and Georgios Sakellariou	Answer Set Programming: Advances in Theory and Implementation Workshop; Vladimir Lifschitz
Redundancy-free Island Parsing of Word Graphs; Bernd Kiefer	Structural Symmetry Breaking; Meinolf Sellmann and Pascal Van Hentenryck	Efficient Distributed "Hormone" Graph Gradients; Esben Hallundbæk Østergaard	Cohesion, coupling and the meta-theory of actions; Andreas Herzig and Ivan Varzinczak	Al in Medicine Europe; Jim Hunter and Silvia Miksch
Theory of Alignment Generators and Applications to Statistical Machine Translation; Raghavendra Udupa U. and Hemanta K. Maji			Cognitive Modelling of Event Ordering Reasoning in Imagistic Domains; Laura S. Mastella, Mara Abel, Luís C. Lamb and Luiz F. De Ros	International Workshop on Adaptive Multimedia Retrieval; Joemon Jose, Marcin Detyniecki and Andreas Nuernberger
				Trading Agent Competition;
				Michael Wellman
				Michael Wellman
Natural Language 1, Session Chair: Ray Mooney	Real-Time and Robot Planning, Session Chair: Ronen Brafman	Complexity of Reasoning 1, Session Chair: Thomas Eiter	Qualitative and Spatial Reasoning, Session Chair: Brandon Bennett	Michael Wellman
0 0 ,	3.		Reasoning,	Michael Wellman
Session Chair: Ray Mooney Learning Strategies for Open- Domain Natural Language Question Answering; Eugene Grois and	Session Chair: Ronen Brafman LRTA*(k); Carlos Hernández and	Propositional Abduction is Almost Always Hard; Gustav Nordh and	Reasoning, Session Chair: Brandon Bennett Scale-Based Monotonicity Analysis in Qualitative Modelling with Flat Segments; Martin Brooks, Yuhong Yan and	Michael Wellman
Session Chair: Ray Mooney Learning Strategies for Open- Domain Natural Language Question Answering; Eugene Grois and David C. Wilkins The Necessity of Syntactic Parsing for Semantic Role Labeling; Vasin Punyakanok,	Session Chair: Ronen Brafman LRTA*(k); Carlos Hernández and Pedro Meseguer Robust Planning with (L)RTDP; Olivier Buffet and	Propositional Abduction is Almost Always Hard; Gustav Nordh and Bruno Zanuttini Parameterized Compilability;	Reasoning, Session Chair: Brandon Bennett Scale-Based Monotonicity Analysis in Qualitative Modelling with Flat Segments; Martin Brooks, Yuhong Yan and Daniel Lemire Model Compilation for Real-Time Planning and Diagnosis with	Michael Wellman

THURSDAY 4TH AUGUST

Time	Pentland	Sidlaw	Fintry	Tinto
9:00 - 10:00	Invited Spaker: Daniel Wolpert,			
	Session Chair: Stuart Russell			
10:30 - 12:30	Belief Revision, Session Chair: Fangzhen Lin	Feature Selection and Cost Sensitivity, Session Chair: Pedro Domingos	Answer Set Programming, Session Chair: Gerd Brewka	Constraint Optimization, Session Chair: Norman Sadeh
	Iterated Belief Revision, Revised; Yi Jin and Michael Thielscher	Feature Selection Based on the Shapley Value; Shay Cohen, Eytan Ruppin and Gideon Dror	On Solution Correspondences in Answer-Set Programming; Thomas Eiter, Hans Tompits and Stefan Woltran	The Backbone of the Travelling Salesperson; Philip Kilby, John Slaney and Toby Walsh
	Solving Logic Program Conflict through Strong and Weak Forgettings; Yan Zhang, Norman Foo and Kewen Wang	InterActive Feature Selection; Hema Raghavan, Omid Madani and Rosie Jones	A Uniform Integration of Higher- Order Reasoning and External Evaluations in Answer-Set Programming; Thomas Eiter, Giovambattista lanni, Roman Schindlauer and Hans Tompits	A Novel Local Search Algorithm for the Traveling Salesman Problem that Exploits Backbones; Weixiong Zhang and Moshe Looks
	Revision of Partially Ordered Information: Axiomatization, Semantics and Iteration; Salem Benferhat, Sylvain Lagrue and Odile Papini	ROCCER: an Algorithm for Rule Learning Based on ROC Analysis; Ronaldo C. Prati and Peter A. Flach	Possibilistic Stable Models; Pascal Nicolas, Laurent Garcia and Igor Stéphan	Bounded Search and Symbolic Inference for Constraint Optimization; Martin Sachenbacher and Brian C. Williams
	Quota and Gmin Merging Operators; Patricia Everaere, Sébastien Konieczny and Pierre Marquis	Repairing Concavities in ROC Curves; Peter A. Flach and Shaomin Wu	Declarative and Computational Properties of Logic Programs with Aggregates; Francesco Calimeri, Wolfgang Faber, Nicola Leone and Simona Perri	A Scalable Method for Multiagent Constraint Optimization; Adrian Petcu and Boi Faltings
12:30 - 14:00	Lunch Break			
14:00 - 15:00	Invited Speaker: Bart Selman,			
	Session Chair: Hector Levesque			
15:30 - 17:30	Ensemble Methods in Learning, Session Chair: Andrew McCallum	Heuristic Search, Session Chair: Pedro Meseguer	Logical Reasoning, Session Chair: Thomas Eiter	Arc Consistency, Session Chair: Zeynep Kiziltan
	Learning Coordination Classifiers; Yuhong Guo, Russell Greiner and Dale Schuurmans	Dual Lookups in Pattern Databases; Ariel Felner, Uzi Zahavi, Jonathan Schaeffer and Robert C. Holte	Discovering Classes of Strongly Equivalent Logic Programs; Fangzhen Lin and Yin Chen	Reducing Checks and Revisions in Coarse-grained MAC Algorithms; D. Mehta and M. R. C. van Dongen
	A Novel Approach to Model Generation for Heterogeneous Data Classification; Rong Jin and Huan Liu	A New Approach to Multiobjective A* Search; L. Mandow and J. L. Pérez de la Cruz	Strong Equivalence for Logic Programs with Preferences; Wolfgang Faber and Kathrin Konczak	Optimal and Suboptimal Singleton Arc Consistency Algorithms; Christian Bessiere and Romuald Debruyne
	Stacked Sequential Learning; William W. Cohen and Vitor R. Carvalho	Choosing between heuristics and strategies: an enhanced model for decision-making; Shavit Talman, Rotem Toister and Sarit Kraus	Equivalence in Abductive Logic; Katsumi Inoue and Chiaki Sakama	A Greedy Approach to Establish Singleton Arc Consistency; Christophe Lecoutre and Stéphane Cardon
	Sequential Genetic Search for Ensemble Feature Selection; Alexey Tsymbal, Mykola Pechenizkiy and Pádraig Cunningham	Improved Knowledge Acquisition for High-Performance Heuristic Search; J. P. Bekmann and Achim Hoffmann	Measuring conflict and agreement between two prioritized belief bases; Guilin Qi, Weiru Liu and David A. Bell	Existential arc consistency: Getting closer to full arc consistency in weighted CSPs; Simon de Givry, Federico Heras, Matthias Zytnicki and Javier Larrosa
17:45 - 19:00	Research Excellence Lecture: Geoffrey Hinton			

Natural Language 2 Section Chair Medical Valors Section Chair Medical Valo	Moorfoot	Kilsyth	Harris	Carrick	Ochil
Session Chair: Ingrid Zukerman Session Chair: Carlos Guestini Session Chair: Moloto Yoloo Session Chair: Moloto Yoloo Session Chair: Moloto Yoloo Session Chair: Short Sussell And Molo Housk recht Molot Housk r					
Session Chair: Maydo Ziverman Session Chair: Carlos Guestrin Analogy Generation with HowNet): Tony Veale And ACMC Approach to Solving Hybrid Factored ADPs, Milos Hauskrecht ADPs, Milo					
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Distribution Estimation; Yos Sang Chon and Heree Tou Ng Adachine Learning Approach to Identification and Resolution of Mary Gardiner Advero Sate Adachine Learning Approach to Identification and Resolution of Mary Gardiner Advero Sate Adaptive Particle Filter; Macasima Semantic Similarity Extended S. Sotton and Adjustice State Adaptive Touries Resolutions of Adaptive Particle Filter; Macasima Semantic Similarity Extended Adaptive International Adaptive Adaptive International Adaptive Particle Filter; Macasima Semantic Similarity Extended Adaptive International Adaptive Particle Filter; Macasima Semantic Similarity Extended Adaptive Particle Filter; Macasima Semantic Similarity Macasima Semantica Semantica Semantica Semantica Semantica Semantica Seman		Hybrid Factored MDPs; Branislav Kveton and	Non-Zero-Sum Games;	Landmarks with Predictive State Representations; Michael R. James, Britton Wolfe	
Infinite Games; Infinite G	Distribution Estimation; Yee Seng Chan and	Filtering; Brenda Ng, Avi Pfeffer	Bargaining Solution;	to Improve Generalization in Reinforcement Learning; Eddie J. Rafols, Mark B. Ring, Richard S. Sutton and	
Estimation with Input Trace Peter D. Turney Peter D. Turney Repersentations (Sprintings of Applications to Credible Reting of Human Routines; Daniel W. Witson and Applications to Credible Reting of Jones W. Witson and Andreas Flache Multi-Agent Systems, Session Chair: Norman Sadeh Session Chair: Ehud Reiter Automatic Text-to-Scene Conversion in the Traffic Accident Domains; Borglund, Magnus Danielsson and Perre Nugues Are Probabilistic Framework for Recognizing Intention in Information Graphics; Shabits Denir Carbory, Ingrid Zokerman, Brillip R. Cohen Carbory, Ingrid Zokerman, Brillip R. Cohen, Clayton T. Morrison and Erin Cannon Maps for Verbs: The Relation Between Intention Dymains and Very Revision Denir (Syrvin Bouveret and Jerome Lang) More on the Power of Demand Queries in Combinatorial Auctions: Learning Manie Learning Manie Learning: Jefficy Juriang Rong Intention and Perre Nary Servin Complexity; Stivin Bourset and Jerome Lange Intention and Perre Nary Servin Complexity; Stivin Bourset and Serial Denir Cannon More on the Power of Demand Queries in Combinatorial Auctions: Learning Manie Languages and Handling Incentives; Sebastien Labnic, Florim Constantin and Process Literation and Vigingn Chen Probabilistic framework and Servin Complexity; Stivin Bourset (Complexity, Stivin Bourset), Juriang Chen More on the Power of Demand Queries in Combinatorial Auctions: Learning Monies Learning Atomic Complexity Stiving Bourset and Servin Complexity; Stiving Bourset and Servin	Identification and Resolution of One-Anaphora; Hwee Tou Ng, Yu Zhou, Robert Dale and		Infinite Games; Yevgeniy Vorobeychik, Michael P. Wellman and	with History; Brian Tanner and	
Session Chair: Ehud Reiter Automatic Text-to-Scene Conversion in the Traffic Accident Domain; Richard Johansson, Anders Berglund, Magnus Danielsson and Pierre Nugues A Probabilistic Framework for Recognizing Intention in Information Graphics; Stephanie Etze, Sandra Carberry, Ingrid Zukerman, Daniel Chester, Nancy Green and Seniz Demir Between Interaction Dynamics and Verb Use; Paul R. Cohen, Clayton T. Morrison and Erin Cannon More on the Power of Demand Queries in Combinatorial Auctions: Learning Atomic Languages and Handling Incentives; Sebastien Labaie, Florin Constantin and Auditions: Learning Atomic Languages and Handling Incentives; Sebastien Labaie, Florin Constantin and Auditions: Learning Atomic Longuages and Handling Incentives; Sebastien Labaie, Florin Constantin and Auditions: Learning Atomic Longuages and Handling Incentives; Sebastien Labaie, Florin Constantin and Auditions: Learning Atomic Longuages and Handling Incentives; Sebastien Labaie, Florin Constantin and Learning with Labeled Sessions; Rong Jin and Huan Liu Affine Algebraic Decision Diagrams (AADDs) and their Application to Structured Probabilistic Inference; Scott Sanner and David McAllester Optimal Linear Search for Sequence Learning; Jogene Schmidhuber, Daan Wierstra and Faustino Gomez Efficient Algarithms and Jogenes with Decision Trees: a Geometric Method that Preserves Intelligibility; Isabelle Alvarez and Stephan Bernard A Decision-Theoretic Approach to Task Assistance for Persons with Dementia; Jennifer Boger, Pascal Poupart, Jesse Hoey, Craig Boutilier, Geoff Fernie and Alex Mihailidis Accurate and Low-cost Location Estimation Using Kernels; Jeffrey Junfeng Pan, Jomes T. Kwok, Qiang Yang and Yiqiang Chen	by Latent Relational Analysis;	Estimation with Input Trace Perturbation: Algorithms and Application to Credible Rating of Human Routines; Daniel W. Wilson and	Emergence of Efficient Social Conventions; Josep M. Pujol, Jordi Delgado, Ramon Sangüesa and	Representations for Planning; Dana Wilkinson,	
Session Chair: Peter Stone Session Chair: Peter Stone Session Chair: Peter Stone Applications, Session Chair: Rina Dechter Multi-agent Coordination using Local Search; Boi Fallings and Quang Huy Nguyen Local Search; Boi Fallings and Daigrams (AADDs) and their Application to Structured Probabilistic Inference; Scott Sanner and David McAllester Optimal Linear Search for Sequence Learning; Jogen Schmidhuber, Daon Wierstra and Faustino Gomez A Decision-Theoretic Approach Trees: a Geometric Method that Preserves Intelligibility; Local Poupart, Jesse Hoey, Craig Boutilier, Geoff Fernie and Alex Mihailidis Accurate and Low-cost Location Estimation Using Kernels; Jeffrey Junfeng Pan, Jomes T. Kwok, Qiang Yang and Yiqiang Chen Florin Constantin and Pilip R. Cohen Corberty, Ingrid Sukstration Using Kernels; Jeffrey Junfeng Pan, Jomes T. Kwok, Qiang Yang and Yiqiang Chen					
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Conversion in the Traffic Accident Domain; Richard Johansson, Anders Berglund, Magnus Danielsson and Pierre Nugues Distributive and Collective Readings in Group Protocols; Silvia Rossi, Sanjeev Kumar and Philip R. Cohen Carberry, Ingrid Zukerman, Daniel Chester, Nancy Green and Seniz Demir Maps for Verbs: The Relation Between Interaction Dynamics and Verb Use; Paul R. Cohen, Clayton T. Morrison and Erin Cannon Efficiency and envy-freeness in fair division of indivisible goads: Local Search for Sequence Learning; Jürgen Schmidhuber, Daan Wierstra and Faustino Gomez Efficiency and envy-freeness in fair division of indivisible goads: Logical representation and complexity; Sylvian Bouveret and Jérôme Lang More on the Power of Demand Queries in Combinatorial Auctions: Learning Atomic Languages and Handling Incentives; Sebastien Lahaie, Florin Constantin and	World,			Applications,	
for Recognizing Intention in Information Graphics; Silvia Rossi, Sanjeev Kumar and Stephanie Elzer, Sandra Carberry, Ingrid Zukerman, Daniel Chester, Nancy Green and Seniz Demir Maps for Verbs: The Relation Between Interaction Dynamics and Verb Use; Paul R. Cohen, Clayton T. Morrison and Erin Cannon More on the Power of Demand Queries in Combinatorial Auctions: Learning Atomic Languages and Handling Incentives; Sébastien Lahaie, Florin Constantin and Faustino Constantin and Constantin and Silvia Rossi, Sanjeev Kumar and Philip R. Cohen Sandra Rossi Sanjeev Kumar and Philip R. Cohen Sandra Rossi Sanjeev Kumar and Philip R. Cohen Sanjeev Kumar and Philip R. Cohen Sequence Learning; Jürgen Schmidhuber, Daan Wierstra and Theoretica Limits; Andreas Krause and Carlos Guestrin A Decision-Theoretic Approach to Task Assistance for Persons with Decision Trees: a Geometric Method that to Task Assistance for Persons with Dementia; Jennifer Boger, Pascal Poupart, Jesse Hoey, Craig Boutilier, Geoff Fernie and Alex Mihailidis Accurate and Low-cost Location Estimation Using Kernels; Jeffrey Junfeng Pan, James T. Kwok, Qiang Yang and Yiqiang Chen	Conversion in the Traffic Accident Domain; Richard Johansson, Anders Berglund, Magnus Danielsson	Local Search; Boi Faltings and		Diagrams (AADDs) and their Application to Structured Probabilistic Inference; Scott Sanner and	
Between Interaction Dynamics and Verb Use; Paul R. Cohen, Clayton T. Morrison and Erin Cannon More on the Power of Demand Queries in Combinatorial Auctions: Learning Atomic Languages and Handling Incentives; Sébastien Lahaie, Florin Constantin and fair division of indivisible goods: Irrees: a Geometric Method that Preserves Intelligibility; Isabelle Alvarez and Stephan Bernard to Task Assistance for Persons with Dementia; Jennifer Boger, Pascal Poupart, Jesse Hoey, Craig Boutilier, Geoff Fernie and Alex Mihailidis Accurate and Low-cost Location Estimation Using Kernels; Jeffrey Junfeng Pan, James T. Kwok, Qiang Yang and Yiqiang Chen	for Recognizing Intention in Information Graphics; Stephanie Elzer, Sandra Carberry, Ingrid Zukerman, Daniel Chester, Nancy Green	Readings in Group Protocols; Silvia Rossi, Sanjeev Kumar and	Optimal Linear Search for Sequence Learning; Jürgen Schmidhuber, Daan Wierstra and	of Information in Graphical Models - Efficient Algorithms and Theoretical Limits; Andreas Krause and	
Queries in Combinatorial Auctions: Learning Atomic Languages and Handling Incentives; Sébastien Lahaie, Florin Constantin and Estimation Using Kernels; Jeffrey Junfeng Pan, James T. Kwok, Qiang Yang and Yiqiang Chen	Between Interaction Dynamics and Verb Use; Paul R. Cohen, Clayton T. Morrison and	fair division of indivisible goods: logical representation and complexity; Sylvain Bouveret	Trees: a Geometric Method that Preserves Intelligibility; Isabelle Alvarez and	to Task Assistance for Persons with Dementia; Jennifer Boger, Pascal Poupart, Jesse Hoey, Craig Boutilier, Geoff Fernie	
		Queries in Combinatorial Auctions: Learning Atomic Languages and Handling Incentives; Sébastien Lahaie, Florin Constantin and		Estimation Using Kernels; Jeffrey Junfeng Pan, James T. Kwok, Qiang Yang and	

FRIDAY 5TH AUGUST

Time	Pentland	Sidlaw	Fintry	Tinto
9:00 - 10:00	Invited Speaker: Stephen Jacobsen, Session Chair: Dieter Fox			
10:30 - 12:30	Nonmonotonic Reasoning, Session Chair: Gerd Brewka	Learning 2, Session Chair: Jeremy Wyatt	Constraint Satisfaction 1, Session Chair: Toby Walsh	Learning in Music and the Web, Session Chair: Susan Craw
	A Model-Theoretic Counterpart of Loop Formulas; Joohyung Lee	Semi-Supervised Regression with Co-Training; Zhi-Hua Zhou and Ming Li	Complete MCS-Based Search: Application to Resource Constrained Project Scheduling; Philippe Laborie	Learning to Play Like the Great Pianists; Asmir Tobudic and Gerhard Widmer
	Minimal and Absent Information in Contexts; Floris Roelofsen and Luciano Serafini	Unsupervised Dimensionality Estimation and Manifold Learning in high-dimensional Spaces by Tensor Voting; Philippos Mordohai and Gérard Medioni	Identifying Conflicts in Overconstrained Temporal Problems; Mark H. Liffiton, Michael D. Moffitt, Martha E. Pollack and Karem A. Sakallah	Signal-to-Score Music Transcription using Graphical Models; Emir Kapanci and Avi Pfeffer
	Reasoning under inconsistency: the forgotten connective; Sébastien Konieczny, Jérôme Lang and Pierre Marquis	Partial and Vague Knowledge for Similarity Measures; Timo Steffens	Counting Solutions of CSPs: A Structural Approach; Gilles Pesant	Topic and Role Discovery in Social Networks; Andrew McCallum, Andrés Corrada-Emmanuel and Xuerui Wang
	Reconstructing an Agent's Epistemic State from Observations; Richard Booth and Alexander Nittka	State Abstraction Discovery from Irrelevant State Variables; Nicholas K. Jong and Peter Stone		Learning Web Page Scores by Error Back-Propagation; Michelangelo Diligenti, Marco Gori and Marco Maggini
12:30 - 14:00	Lunch Break			
14:00 - 15:00	Invited Speaker: Kevin Knight, Session Chair: Johanna Moore			
15:30 - 17:30	Causality and Belief Change, Session Chair: Enrique Sucar	Learning and Plan Recognition, Session Chair: Claude Sammut	Constraint Satisfaction 2, Session Chair: Ian Miguel	Planning, Session Chair: Michael Thielscher
	Propositional Argumentation and Causal Reasoning; Alexander Bochman	Fast and Complete Symbolic Plan Recognition; Dorit Avrahami-Zilberbrand and Gal A. Kaminka	Value Ordering for Finding All Solutions; Barbara M. Smith and Paula Sturdy	Integrating Planning and Temporal Reasoning for Domains with Durations and Time Windows; Alfonso Gerevini, Alessandro Saetti and Ivan Serina
	Compiling Bayesian Networks with Local Structure; Mark Chavira and Adnan Darwiche	Combining Learning Constraints and Numerical Regression; Dorian Suc and Ivan Bratko	Optimal Refutations for Constraint Satisfaction Problems; Tudor Hulubei and Barry O'Sullivan	Abstraction-based Action Ordering in Planning; Maria Fox, Derek Long and Julie Porteous
	First-Order Logical Filtering; Afsaneh Shirazi and Eyal Amir	Stereotype Extraction with Default Clustering; Julien Velcin and Jean-Gabriel Ganascia	Resolution in Max-SAT and its relation to local consistency in weighted CSPs; Javier Larrosa and Federico Heras	Over-Subscription Planning with Numeric Goals; J. Benton, Minh B. Do and Subbarao Kambhampati
	Inverse Resolution as Belief Change; Maurice Pagnucco and David Rajaratnam		Decision Diagrams for the Computation of Semiring Valuations; Nic Wilson	Automated Composition of Web Services by Planning at the Knowledge Level; M. Pistore, A. Marconi, P. Bertoli and P. Traverso

Moorfoot	Kilsyth	Harris	Carrick	Ochil
Text Categorization,	Decision Theory in Multi-Agent	Philosophical Foundations,		
Session Chair: William Cohen	Systems, Session Chair: Jeff Rosenschein	Session Chair: Alessandro Saffiotti		
Beyond TFIDF Weighting for	Sequential-Simultaneous	The Altricial-Precocial Spectrum		
Text Categorization in the Vector Space Model; Pascal Soucy and	Information Elicitation in Multi- Agent Systems; Gal Bahar and	for Robots; Aaron Sloman and Jackie Chappell		
Guy W. Mineau	Moshe Tennenholtz			
Feature Generation for Text	Regret-based Utility Elicitation	Attribution of Knowledge to		
Categorization Using World Knowledge; Evgeniy Gabrilovich	in Constraint-based Decision Problems; Craig Boutilier,	Artificial Agents and their Principals; Samir Chopra and		
and Shaul Markovitch	Relu Patrascu, Pascal Poupart	Laurence White		
	and Dale Schuurmans			
A Probabilistic Learning	On Maximal Classes of Utility	PsychSim: Modeling Theory of		
Method for XML Annotation of Documents; Boris Chidlovskii	Functions for Efficient one-to- one Negotiation;	Mind with Decision-Theoretic Agents; David V. Pynadath and		
and Jérôme Fuselier	Yann Chevaleyre, Ulle Endriss	Stacy C. Marsella		
	and Nicolas Maudet			
	On the Axiomatic Foundations of	Building the Semantic Web		
	Ranking Systems; Alon Altman and Moshe Tennenholtz	Tower from RDF Straw; Peter F. Patel-Schneider		
	and Moshe Tennenholtz	Peter F. Patel-Schneider		
Learning Language Semantics, Session Chair: Mirela Lapata	Complexity of Reasoning 2, Session Chair: Fangzhen Lin			Case-based reasoning, Session Chair: Susan Craw
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Session Chair: Mirela Lapata	Session Chair: Fangzhen Lin			Session Chair: Susan Craw
	, , , , , , , , , , , , , , , , , , , ,			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis;
Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and	Session Chair: Fangzhen Lin Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi,			Session Chair: Susan Craw Stepwise Nearest Neighbor
Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs;	Session Chair: Fangzhen Lin Generalized Amazons is PSPACE-Complete;			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis;
Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer	Session Chair: Fangzhen Lin Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu
Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus	Session Chair: Fangzhen Lin Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis;
Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in language evolution models;	Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency in CP-nets; Judy Goldsmith,			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces of Evidence in Case-Based
Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in	Session Chair: Fangzhen Lin Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces
Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in language evolution models; Paul Vogt	Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency in CP-nets; Judy Goldsmith, Jérôme Lang, Miroslaw Truszczynski and Nic Wilson			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces of Evidence in Case-Based Learning; Eyke Hüllermeier
Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in language evolution models;	Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency in CP-nets; Judy Goldsmith, Jérôme Lang, Miroslaw Truszczynski and Nic Wilson Data Complexity of Reasoning			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces of Evidence in Case-Based Learning; Eyke Hüllermeier
Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in language evolution models; Paul Vogt Robust Ontology Acquisition from Machine-Readable Dictionaries; Eric Nichols,	Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency in CP-nets; Judy Goldsmith, Jérôme Lang, Miroslaw Truszczynski and Nic Wilson Data Complexity of Reasoning in Very Expressive Description Logics; Ullrich Hustadt,			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces of Evidence in Case-Based Learning; Eyke Hüllermeier Automating the Discovery of Recommendation Knowledge; David McSherry and
Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in language evolution models; Paul Vogt Robust Ontology Acquisition from Machine-Readable	Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency in CP-nets; Judy Goldsmith, Jérôme Lang, Miroslaw Truszczynski and Nic Wilson Data Complexity of Reasoning in Very Expressive Description			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces of Evidence in Case-Based Learning; Eyke Hüllermeier Automating the Discovery of Recommendation Knowledge;
Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in language evolution models; Paul Vogt Robust Ontology Acquisition from Machine-Readable Dictionaries; Eric Nichols, Francis Bond and	Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency in CP-nets; Judy Goldsmith, Jérôme Lang, Miroslaw Truszczynski and Nic Wilson Data Complexity of Reasoning in Very Expressive Description Logics; Ullrich Hustadt,			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces of Evidence in Case-Based Learning; Eyke Hüllermeier Automating the Discovery of Recommendation Knowledge; David McSherry and
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Session Chair: Mirela Lapata Automatic Semantic Role Labeling for Chinese Verbs; Nianwen Xue and Martha Palmer Meaning development versus predefined meanings in language evolution models; Paul Vogt Robust Ontology Acquisition from Machine-Readable Dictionaries; Eric Nichols, Francis Bond and	Generalized Amazons is PSPACE-Complete; Timothy Furtak, Masashi Kiyomi, Takeaki Uno and Michael Buro The computational complexity of dominance and consistency in CP-nets; Judy Goldsmith, Jérôme Lang, Miroslaw Truszczynski and Nic Wilson Data Complexity of Reasoning in Very Expressive Description Logics; Ullrich Hustadt,			Session Chair: Susan Craw Stepwise Nearest Neighbor Discriminant Analysis; Xipeng Qiu and Lide Wu Cho-k-NN: A Method for Combining Interacting Pieces of Evidence in Case-Based Learning; Eyke Hüllermeier Automating the Discovery of Recommendation Knowledge; David McSherry and Christopher Stretch Sophia: A novel approach for Textual Case-based Reasoning;



IJCAI-05 TECHNICAL POSTER SESSION

The IJCAI-2005 Poster Session will be held on Tuesday 2 August from 17:30 to 19:00. The posters will be situated in the exhibition area in the Cromdale Hall on Level -2 of the Edinburgh International Conference Centre and will be displayed for the duration of the conference.

Poster Chair: Alessandro Saffiotti

Ai and Cognitive Architectures

Motivated Agents Kathryn Kasmarik, William Uther and Mary-Lou Maher

Using AI and simulations to design and control space habitats David Kortenkamp and Scott Bell

A Universal Measure of Intelligence for Artificial Agents Shane Legg and Marcus Hutter

It's About Time Neil Madden and Brian Logan

Automation Intelligence for the Smart Environment G. Michael Youngblood, Edwin O. Heierman, Lawrence B. Holder and Diane J. Cook

Constraint Satisfaction and Search

Allocation and Scheduling for MPSoCs via decomposition and no-good generation

Luca Benini, Davide Bertozzi, Alessio Guerri and Michela Milano

Minimizing a Makespan Under Uncertainty Jérôme Fortin, Pawel Zielinski, Didier Dubois and Hélène Fargier

Scaling up WA* with Commitment and Diversity David Furcy and Sven Koenig

A Covering Problem for Hypercubes Jörg Hoffmann and Sebastian Kupferschmid

Predicate-Oriented Isomorphism Elimination in Model Finding Xiangxue Jia and Jian Zhang

Maintaining Arc Consistency using Adaptive Domain Ordering Chavalit Likitvivatanavong, Yuanlin Zhang, James Owen, and Eugene C. Freuder

Combination of Local Search Strategies for Rotating Workforce Scheduling Problem Nysret Musliu

Corrective Explanation for Interactive Constraint Satisfaction Barry O'Sullivan, Barry O'Callaghan and Eugene C. Freuder

CSP Search with Responsibility Sets and Kernels Igor Razgon and Amnon Meisels

Hypertree-decomposition via Branch-decomposition Marko Samer

Improving Tree Decomposition Methods With Function Filtering Martí Sánchez, Javier Larrosa and Pedro Meseguer

Streamlining Local Search for Spatially Balanced Latin Squares Casey Smith, Carla Gomes and Cesar Fernandez

Knowledge Representation and Reasoning

Abduction with Hypotheses Confirmation Marco Alberti, Marco Gavanelli, Evelina Lamma, Paola Mello and Paolo Torroni

A language for functional interpretation of model based simulation Jonathan Bell, Neal Snooke and Chris Price

A Non-monotonic Logic for Specifying and Querying Preferences Guido Boella and Leendert van der Torre

A Multidimensional Semantic Framework for Adaptive Hypermedia Systems

Francesca Carmagnola, Federica Cena, Cristina Gena and Ilaria Torre

Explaining Search Results
Maurice Coyle and Barry Smyth

A Cognitive Model of Visual Analogical Problem-Solving Transfer Jim Davies, Ashok K. Goel and Nancy J. Nersessian

An Architecture for Proof Planning Systems Louise A. Dennis

Explaining preferences with argument positions Sylvie Doutre, Trevor Bench-Capon and Paul E. Dunne

Heuristics for Hard ASP Programs Wolfgang Faber, Nicola Leone and Francesco Ricca

Incremental Diagnosis of Discrete-Event Systems Alban Grastien, Marie-Odile Cordier and Christine Largouët

Reflection Patterns for Interactive Knowledge Capture lihie Kim

A Unified Framework of Propositional Knowledge Base Revision and Update Based on State Transition Models Yasuo Kudo and Tetsuya Murai

Redesign Support Framework based on Hierarchical Multiple Models I. López-Arévalo, A. Rodríguez-Martínez, A. Aldea, R. Bañares-Alcántara and L. Jiménez

Knowledge Based Approach for Mechanically Verifying Security Protocols

Xiaoqi Ma, Xiaochun Cheng and Rachel McCrindle

Capturing and Reusing Case-Based Context for Image Retrieval Dympna O'Sullivan, Eoin McLoughlin, Michela Bertolotto and David C. Wilson

Dependency Calculus Reasoning in a General Point Relation Algebra Marco Ragni and Alexander Scivos

Compact Propositional Encodings of First-Order Theories Deepak Ramachandran and Eyal Amir

Computationally Grounded Model of BDI-Agents Kaile Su, Abdul Sattar, Kewen Wang and Guido Governatori

The Ontology Revision Yu Sun and Yuefei Sui

A CLP-Based, Diagnosticity-Driven System for Concept Combinations Georgios Tagalakis, Daniela Ferrari and Mark T. Keane

Proof General / Eclipse: A Generic Interface for Interactive Proof Daniel Winterstein, David Aspinall and Christoph Lüth

Learning and Information Extraction

Using Learned Browsing Behavior Models to Recommend Relevant Web Pages

Tingshao Zhu, Russ Greiner, Gerald Häubl, Kevin Jewell and Bob Price

A Study of Selection Noise in Collaborative Web Search Oisín Boydell, Barry Smyth, Cathal Gurrin and Alan F. Smeaton

Image Retrieval and Disambiguation for Encyclopedic Web Search Atsushi Fujii and Tetsuya Ishikawa

Learning Complex Event Descriptions by Abstraction Ugo Galassi, Attilio Giordana, Lorenza Saitta and Marco Botta

Conditional Visuomotor Learning and Viability Theory Fadila Hadj-Bouziane, Hélène Frankowska, Martine Meunier and Driss Boussaoud

fMRI Analysis via One-class Machine Learning Techniques David R. Hardoon and Larry M. Manevitz

Adaptive Support Vector Machine for Time-Varying Data Streams Using Martingale Shen-Shyang Ho and Harry Wechsler

Automatic Hypertext Keyphrase Detection Daniel Kelleher and Saturnino Luz

Relational Learning for Email Task Management Rinat Khoussainov and Nicholas Kushmerick

A Fast Normalized Maximum Likelihood Algorithm for Multinomial Data

Petri Kontkanen and Petri Myllymäki

Using Neutral Examples for Learning Polarity Moshe Koppel and Jonathan Schler

Transfer in Learning by Doing Bill Krueger, Tim Oates, Tom Armstrong, Paul Cohen and Carole Beal

Supervised Local Tangent Space Alignment for Classification Hongyu Li, Wenbin Chen and I-Fan Shen

Active Cost-Sensitive Learning Dragos D. Margineantu

Automatic learning of domain model for personalized hypermedia applications

Hermine Njike, Thierry Artières, Patrick Gallinari, Julien Blanchard and Guillaume Letellier

Kernels on Prolog Ground Terms Andrea Passerini and Paolo Frasconi

A Learning Scheme for Generating Expressive Music Performances of Jazz Standards

Rafael Ramirez and Amaury Hazan

Incorporating a folding rule into inductive logic programming David A. Rosenblueth

Development of new techniques to improve Web search David Sánchez and Antonio Moreno

Intimate Learning: A Novel Approach for Combining Labelled and Unlabelled Data

Zhongmin Shi and Anoop Sarkar

Collective Object Identification Parag Singla and Pedro Domingos Question Classification by Structure Induction Menno van Zaanen, Luiz Augusto Pizzato and Diego Mollá

An Inductive Database for Mining Temporal Patterns in Event Sequences

Alexandre Vautier, Marie-Odile Cordier and René Quiniou

Discovering Time Differential Law Equations Containing Hidden State Variables and Chaotic Dynamics Takashi Washio, Fuminori Adachi and Hiroshi Motoda

Learning Global Models Based on Distributed Data Abstractions Xiaofeng Zhang and William K. Cheung

Multi-agent Systems

Language Learning in Multi-Agent Systems Martin Allen, Claudia V. Goldman and Shlomo Zilberstein

On the Evolution of Memory Size in the Minority Game (extended abstract)

Ricardo M. Araújo and Luis C. Lamb

Achieving Allocatively-Efficient and Strongly Budget-Balanced Mechanisms in the Network Flow Domain for Bounded-Rational Agents Yoram Bachrach and Jeffrey S. Rosenschein

The Evolution of Artificial Social Systems Guido Boella and Leendert van der Torre

Fast convergence to satisfying distributions Teddy Candale and Sandip Sen

A rule language for modelling and monitoring social expectations in multi-agent systems Stephen Cranefield

A Framework for Communication Planning on Mobile Devices Joseph B. Kopena and William C. Regli

Trust No One: Evaluating Trust-based Filtering for Recommenders John O'Donovan and Barry Smyth

Inter-Agent Communication: A Cost-Reduction Approach Using an Autonomous Mobile Mailbox Armin Stranjak, Igor Cavrak and Mario Zagar

Coalitional Games in Open Anonymous Environments Makoto Yokoo, Vincent Conitzer, Tuomas Sandholm, Naoki Ohta and Atsushi Iwasaki

Value-Centric Trust Model with Improved Familiarity Measurement Jie Zhang and Ali A. Ghorbani

Natural Language and User Interfaces

Towards More Intelligent Mobile Search Karen Church, Mark T. Keane and Barry Smyth

An Inference Model for Semantic Entailment in Natural Language Rodrigo de Salvo Braz, Roxana Girju, Vasin Punyakanok, Dan Roth and Mark Sammons

Discovering Inconsistency through Examination Dialogues Paul E. Dunne, Sylvie Doutre and Trevor Bench-Capon

A Probabilistic Lexical Approach to Textual Entailment Oren Glickman, Ido Dagan and Moshe Koppel Structural Representation and Matching of Articulatory Speech Structures based on the Evolving Transformation System (ETS) Formalism

Alexander Gutkin and David Gay

Sentence Extraction for Legal Text Summarisation Ben Hachey and Claire Grover

Fault-Tolerant Context-Based Interpretation of Mathematical Formulas

Helmut Horacek and Magdalena Wolska

MDL-based Acquisition of Substitutability Relationships between Discourse Connectives

Ben Hutchinson

Can we assign attitudes to a computer based on its beeps?—Toward an effective method for making humans empathize with artificial agents

Takanori Komatsu

Correspondence-guided Synchronous Parsing of Parallel Corpora

Naturalness of an Utterance Based on the Automatically Retrieved Commonsense

Rafal Rzepka, Yali Ge, and Kenji Araki

Induction of Syntactic Collocation Patterns from Generic Syntactic Relations

Violeta Seretan

Evaluating an NLG System using Post-Editing Somayajulu G. Sripada, Ehud Reiter and Lezan Hawizy

Online Support System for Mediator Education Takahiro Tanaka, Yoshiaki Yasumura, Daisuke Katagami and Katsumi

Appropriate Microplanning Choices for Low-Skilled Readers Sandra Williams and Ehud Reiter

Planning

Mixed-Initiative Activity Planning for Mars Rovers John Bresina, Ari Jónsson, Paul Morris and Kanna Rajan

Planning with graded fluents and actions Marta Cialdea, Carla Limongelli, Andrea Orlandini and Valentina Poggioni

Automated Adaptive Support for Task and Information Prioritizing Tjerk de Greef and Peter-Paul van Maanen

Planning for Weakly-Coupled Partially Observable Stochastic Games AnYuan Guo and Victor Lesser

Multi-Agent Assumption-Based Planning Damien Pellier and Humbert Fiorino

Open-World Planning for Story Generation Mark O. Riedl and R. Michael Young

Disjunctive Temporal Planning with Uncertainty K. Brent Venable and Neil Yorke-Smith

Robotics and Perception

Talking Robots: a Fully Autonomous Implementation of the Talking Heads

Jean-Christophe Baillie and Matthieu Nottale

An On-Line Time Warping Algorithm for Tracking Musical Performances Simon Dixon

Path-Planning for Autonomous Training on Robot Manipulators in Space

Froduald Kabanza, Roger Nkambou and Khaled Belghith

Growth of Motor Coordination in Early Robot Learning M. H. Lee and Q. Meng

Measuring the Cost of Robotic Communication Avi Rosenfeld, Gal A Kaminka and Sarit Kraus

An Heuristic Search based Approach for Moving Objects Tracking Elena Sánchez-Nielsen and Mario Hernández-Tejera

3-D Interpretation of Single Line Drawings Kenji Shoji, Fubito Toyama and Juichi Miyamichi

SVM-based Obstacles Recognition for Road Vehicle Applications M.A. Sotelo, J. Nuevo, D. Fernandez, I. Parra, L.M. Bergasa, M. Ocana and R. Flores

Detecting and locating faults in the control software of autonomous mobile robots

Gerald Steinbauer and Franz Wotawa

Learning discontinuities for switching between local models Marc Toussaint and Sethu Vijayakumar

Uncertainty

Model minimization by linear PSR Masoumeh T.Izadi and Doina Precup

Using core beliefs for point-based value iteration Masoumeh T. Izadi, Ajit V. Rajwade and Doina Precup

Approximating Pseudo-Boolean Functions on Non-Uniform Domains R.F. Lax, Guoli Ding, Peter P. Chen and J.Chen

A Modal Logic for Reasoning about Possibilistic Belief Fusion Churn-Jung Liau and Tuan-Fang Fan

Networked Distributed POMDPs: A Synergy of Distributed Constraint Optimization and POMDPs

Ranjit Nair, Pradeep Varakantham, Milind Tambe and Makoto Yokoo

Coping with exceptions in multiclass ILP problems using possibilistic logic

Mathieu Serrurier and Henri Prade

IJCAI-05 TECHNOLOGY EXCHANGE AND EXHIBITION

The Technology Exchange and Exhibition will be held in the Cromdale Hall on Level -2 of the Edinburgh International Conference Centre from Tuesday 2 August until Friday 5 August. The exhibition will comprise a host of displays designed to showcase current products, publications, research and applications in artificial intelligence. Admission is restricted to registered participants and badges must be worn.

Exhibition Opening Hours:

 Tuesday 2 August
 1000 - 1900 hours

 Wednesday 3 August
 1000 - 1800 hours

 Thursday 4 August
 1000 - 1800 hours

 Friday 5 August
 1000 - 1530 hours

Exhibitors

- Taylor & Francis
- European Coordination Committee for Artificial Intelligence (ECCAI)
- Elsevier
- Cambridge University Press
- Oxford University Press
- WWW2006 Conference
- AKT: Advanced Knowledge Technologies
- Springer-Verlag GmbH
- BT
- Scottish Enterprise
- The British Computer Society
- The MIT Press
- IOS Press

STAND NUMBER 1

Taylor & Francis

4 Park Square, Milton Park, Abingdon, Oxfordshire OX14 4RN www.taylorandfrancisgroup.com

Tel: 020 7017 6000 **Fax:** 020 7017 6714

Email: angela.dickinson@tandf.co.uk

Contact: Angela Dickinson

Taylor & Francis are one of the World's leading publishers and have been publishing high quality scientific, academic and professional books and journals since 1798. With recent acquisitions Taylor and Francis have build up an established portfolio of Computing & Artificial Intelligence titles, serving the international scientific community with high quality peer-reviewed scientific articles.

STAND NUMBER 2

European Coordination Committee for Artificial Intelligence (ECCAI)

c/o Werner Horn, Department of Medical Cybernetics and AI, Freyung 6/2, A-1010 Vienna, Austria

www.eccai.org

werner@eccai.org

ECCAI, the European Coordinating Committee for Artificial Intelligence, was established in July 1982 as a representative body for the European Artificial Intelligence community. Its aim is to promote the study, research and application of Artificial Intelligence in Europe

ECCAI's members are currently 26 national European Al societies. ECCAI's activities include the organization of the European Conference on Al (ECAI) in each even year and the Advanced Course on Al (ACAI) in each odd year. Both events are hosted by a national Al society.

STAND NUMBER 3

Elsevier

Radarweg 29, 1043 NX Amsterdam, The Netherlands

www.elsevier.com

A world leading, multiple-media publisher of scientific, technical and health information products and services, with 7,000 employees in 73 locations around the globe. Elsevier publishes more than 20,000 products and services, including journals, books, electronic products, services, databases and portals serving the global scientific, technical and medical (STM) communities. Elsevier's computer science department publishes some 110 high quality international journals and 50 books per year.

STAND NUMBER 5

Cambridge University Press

Shaftesbury Road, Cambridge, CB2 2RU

www.cambridge.org

Cambridge University Press is the printing and publishing house of the University of Cambridge and has grown to become one of the largest academic and professional publishers, publishing over 2,000 books and 150 journals a year, which are sold in 200 countries. Cambridge University Press publishes across the whole range of computer science. Our titles range from guides for professional programmers on software development, testing and implementation, through to a wide range of textbooks and research monographs. Visit our stand at IJCAI 2005 to receive a 20% discount on displayed titles.

STAND NUMBER 6

Oxford University Press

Great Clarendon Street, Oxford, OX2 6DP

www.oxfordjournals.org **Tel:** 01865 354458 **Contact:** Linda Hann

Email: linda.hann@oupjournals.co.uk

Oxford Journals is part of the world's largest university press, so unlike many commercial publishers we're motivated by quality, not profit. Our goal is to bring the highest quality research to the widest possible audience. Our commitment is reflected in the standard of our portfolio of more than 180 titles, our service, and the value for money we offer. Our collections in the sciences include many of the most authoritative journals in print and online.

STAND NUMBER 7 WWW2006 Conference

Email: enquiries@www2006.org

Tel: 02380 594479 **Fax:** 02380 592865 http://www2006.org/

Since the first international WWW Conference in 1994, this prestigious event, organized by the International World Wide Web Conference Committee (IW3C2), has provided the annual public forum for communicating research and development of Web infrastructure and applications, and W3C initiatives. The fifteenth conference comes to the UK for the first time and will be held from 22 to 26 May 2006 at the Edinburgh International Conference Centre. WWW2006 will have around 2,000 delegates, including researchers or developers from institutions and technical companies from around the world and managers from the financial, service and public sectors attracted to the sector-based themed days.

STAND NUMBER 8

AKT: Advanced Knowledge Technologies

Director: Professor Nigel Shadbolt, School of Electronics and Computer Science, University of Southampton, SO17 1BJ

Email: nrs@ecs.soton.ac.uk

Tel: 023 8059 3523 www.aktors.org

Advanced Knowledge Technologies (AKT) is a multi-million pound six-year Interdisciplinary Research Collaboration between five top-ranked UK university departments. It is tackling one of the major challenges of our time - information overload. AKT is providing integrated technologies and services to get the right content to the right place, at the right time, in the right form. The Semantic Web, a projected extension to the WWW, provides AKT's technological basis, allowing a unified framework within which many approaches to the problem can be integrated. AKT is tackling the whole lifecycle of capture, modelling, retrieval, publishing, reuse, and maintenance of knowledge.

STAND NUMBER 9

Springer-Verlag GmbH

Tiergartenstr. 17, 69121 Heidelberg, Germany

Tel: +49 (0) 62 21-4 87-0 **Fax:** +49 (0) 62 21-4 87-83 36 **www.springeronline.com**

Springer is one of the most renowned scientific publishing companies in the world. Its publications cover subjects ranging from the natural sciences, mathematics, engineering and computer science to medicine, humanities, economics and law. Springer's authors are highly qualified experts. They include a large number of Nobel prizewinners and more are added every year. Springer publishes more than 3,400 new books each year and 1.250 journals, most of which are also available in electronic form.

STAND NUMBER 10

British Telecommunications (BT)

The Intelligent Systems Research Centre - ISRC BT Group Chief Technology Office

Tel: +44 (0) 1473 605450 Email: rika.nauck@bt.com MLB 1 / PP12, Orion Building

Contact: Dr. Nader Azarmi, Adastral Park, Martlesham Heath

Ipswich IP5 3RE UK

www.bt.com

The ISRC is a BT Group CTO's centre of Artificial Intelligence research and innovation. The Centre focuses on AI technologies such as intelligent optimisation, soft computing, knowledge management, software agents and P2P computing.

The ISRC aims to develop novel intelligent software systems and technologies in order to radically improve the way an organisation/enterprise operates and employs its mission critical processes, systems and resources; and technologically enable the provision and management of future ICT networks and innovative services. During the IJCAI-05 Technology Exchange and Exhibition event, a number of the ISRC's AI research products (SPIDA, iOpt) and applications will be demonstrated.

STAND NUMBER 11

Scottish Enterprise

The Scottish Enterprise Stand will be occupied by Talentscotland. com on Tuesday and Wednesday and by Edinburgh-Stanford Link on Thursday and Friday.

Talentscotland.com

The Alba Centre, The Alba Campus, Livingston,

West Lothian, EH54 7EG **Tel:** 01506 407 000 **Fax:** 01506 407 001

E-mail: info@talentscotland.com

Talentscotland.com – Living and Working in Scotland Consider a career in Scotland – a country with a great reputation for its scientific excellence and one of the most vibrant life sciences communities in Europe. Scotland has a wide range of companies and research institutes interested in skilled scientists and engineers who are ready for a real career challenge.

Talentscotland.com provides a wealth of information on:

- · where to find a great job in Scotland
- company and academic activities
- the excellent lifestyle
- and practical advice to help you make the move.

For more information visit www.talentscotland.com. Register for job alerts and regular life sciences news from Scotland.

Talentscotland.com is managed by Scottish Enterprise.

Edinburgh-Stanford Link

2 Buccleuch Place, Edinburgh, EH8 9LW

Tel: 0131 651 3157
Fax: 0131 650 4587
Contact: Nick Wright
E-mail: nick.wright@eslink.org

The Edinburgh-Stanford Link is a £6m research, training and commercialisation initiative, specialising in speech and language technology. The initiative links the UK's top academic computer science research group, the University of Edinburgh, with the world's most entrepreneurial, Stanford University in California. Part-funded by Scottish Enterprise, the Link exploits the commercial potential of this research by transferring knowledge and skills into new or existing companies. The Link also runs several technology entrepreneurship courses, as well as serving as the commercialisation vehicle for around 100 research staff investigating human computer interaction (HCI) at the University of

STAND NUMBER 12

The British Computer Society

1 Sanford Street, Swindon SN1 1HJ

www.bcs.org.uk

Edinburgh.

The British Computer Society is the leading professional body for the IT industry. With members in over 100 countries the BCS is the professional and learned Society in the field of computers and information systems.

The Society is responsible for setting standards for the IT profession. It is also leading the change in public perception and appreciation of the economic and social importance of professionally managed IT projects and programmes. The Society advises, informs and persuades industry and government on successful IT implementation.

The BCS is determined to promote IT as **the** profession of the 21st century.

STAND NUMBER 16

The MIT Press

The MIT Press Contact Person: Robert Prior, Executive Editor

Email: prior@mit.edu

55 Hayward Street, Cambridge, MA 02142 , USA

London Office contact: Judith Bullent

jbullent@hup-mitpress.co.uk http://mitpress.mit.edu

The MIT Press publishes distinguished trade books, monographs and textbooks in core and innovative areas of artificial and computational intelligence. New titles include Introduction to Machine Learning by Ethem Alpaydin, Autonomous Agents by George Bekey, and Principles of Robot Motion by Howie Choset et

A wide range of our new and backlist titles will be available to purchase at 20% discount, and our Acquisition Editor and marketing personnel will be available during the conference to talk to you.

STAND NUMBER 19

IOS Press

Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands 0031 20 688 3355

www.iospress.nl

IOS Press is a rapidly expanding Scientific, Technical, Medical, and Professional publishing house established in 1987 in Amsterdam, The Netherlands. IOS Press focuses on a broad range of subject areas including Artificial Intelligence. IOS Press publishes next to 6 Al journal titles, 10-15 books a year in its series Frontiers in Artificial intelligence and Applications, which covers all aspects of theoretical and applied artificial intelligence research in the form of monographs, doctoral dissertations, textbooks, handbooks and proceedings volumes.

EXHIBITION FLOOR PLAN BARY COMMITTED TO THE PLAN TO T



TRADING AGENTS COMPETITION

On Tuesday 2 August, the 2005 Trading Agent Competition (TAC) will conduct its Semi-final Round in the Technology Exchange and Exhibition in the Cromdale Hall of the EICC, with Finals taking place the following day. TAC-05 presents challenging market games in the domains of travel shopping and supply chain management. The exhibit will feature live games with running commentary, and posters and demonstrations from participating teams.



REGISTRATION

Registration for workshops and tutorials will take place at Appleton Tower, University of Edinburgh at the following times:

Saturday 30 July 0800 to 1700 hours Sunday 31 July 0800 to 1700 hours Monday 1 August 0800 to 1000 hours

Please note that participants attending the workshops and/or tutorials should collect their conference materials when they register at the University of Edinburgh.

Registration for the conference will take place in the Strathblane Hall of the EICC and will be open at the following times:

Monday 1 August
Tuesday 2 August
Wednesday 3 August
Thursday 4 August
Friday 5 August

1400 to 1800 hours
0800 to 1900 hours
0800 to 1800 hours
0800 to 1800 hours
0800 to 1700 hours



VENUES

The University of Edinburgh,

Appleton Tower, 11 Crichton Street, Edinburgh, EH8 9LE

Tel: 00 44 (0) 131 650 1000

The workshops and tutorials will take place at Appleton Tower and surrounding University buildings. The University of Edinburgh created the School of Informatics to bring together research and teaching in Computer Science, Cognitive Science and Artificial Intelligence and provide a foundation for interdisciplinary studies bringing a new perspective to research and scholarship across the University. The School of Informatics is the UK's biggest research group in this area.

Edinburgh International Conference Centre,

The Exchange, Edinburgh, EH3 8EE Tel: 00 44 (0) 131 300 3000 Fax: 00 44 (0) 131 300 3030

The IJCAI-05 Conference Sessions will be held at Edinburgh International Conference Centre (EICC), situated in the city centre. The EICC's striking circular design has made it one of Edinburgh's most distinctive landmarks. The centre has hosted many high profile conferences and events since opening in 1995. As you would expect from a world-class venue, the technical, presentation and communications facilities are modern, efficient and adaptable.



GENERAL INFORMATION

Catering and Exhibition

The IJCAI-05 Technology Exchange and Exhibition will be held in the Cromdale Hall of the EICC from Tuesday 2 August to Friday 5 August. All participants are invited to visit the exhibition.

Coffee and tea will be served in the exhibition hall at the following times from Tuesday to Friday:

1000 - 1030 1530 - 1600

Lunch is not included in the registration fee, however lunch can be purchased in the EICC or from a nearby food outlet. Participants are not permitted to bring any food or drink into the EICC building.

Message Board

Messages and news for the Conference participants will be published on a message board next to the Conference registration desk.

Participant Badges

For security purposes, participant badges must be worn at all times.

General Assistance

Please go to the IJCAI-05 registration desk if you have any queries.

Currency

Currency exchanges are available at all major UK airports including Glasgow and Edinburgh and in Edinburgh Waverley Train Station.

Participants will also be able to exchange currency in most Edinburgh city centre banks.

Credit Cards

Most credit cards are accepted in the UK. However it is best to pay cash in smaller shops.

Banking Hours

Normally Monday to Friday 0900 to 1700 hours.

Shopping

Opening hours: Monday to Friday 0900 to 1700 hours Late night shopping on Thursdays until 1930 or 2000 hours.

Language

The official language of the Conference will be ENGLISH – there will be no simultaneous translation in conference sessions.

Business Service Centre

The EICC's business centre offers facilities including fax machine, PC/printer and photocopier. Secretarial services are also available.

Cybercafé and Internet Access

There will be an IJCAI-05 cybercafé for participants in the Technology Exchange and Exhibition in the Cromdale Hall of the EICC. Internet access is also possible through the EICC's wireless facilities. Please ask for a voucher at the registration desks.

Parking

There are five car parks all within two to five minutes' walking distance from the EICC. Please view the website for detailed information about car parking – www.eicc.co.uk

Transport

Taxi service is an easy way to travel around Edinburgh. All black taxis use meters to record the cost of the journey. When using private hire taxis it is best to agree an approximate fare at the start of the journey.

Press

The press desk will be located in the Strathblane Hall on Level 0 of the ${\sf EICC}.$

Speakers

The Speakers' Preview Area will be in the Lomond Foyer on Level 0 of the EICC. Speakers should visit this area, preferably 2 hours prior to the start of their session, to organise the material for their presentation. The room will be open from 1400 to 1800 hours on Monday 1 August and from 0800 to 1800 hours from Tuesday onwards.

Telephones

Public telephones for domestic and international calls are located in the Strathblane Hall on Level 0 of the EICC.



SOCIAL PROGRAMME

MONDAY 1 AUGUST 2005

IJCAI-05 Official Opening Ceremony

1815 - 1915 hours

The Opening Ceremony will be held in the Pentland Suite on Level 3 of the Edinburgh International Conference Centre and will be chaired by Fausto Giunchiglia, IJCAI-05 Conference Chair. This will be followed by the opening reception at Edinburgh Castle.

Welcome Reception at Edinburgh Castle

1930 - 2130 hours

The IJCAI-05 Welcome Reception will be held in the stunning surroundings of Edinburgh Castle. There will be time to view the various places of interest within the Castle including the Honours of Scotland - Scotland's Crown Jewels. Drinks and canapés will be served. Complimentary for all participants and registered accompanying guests.

Dress: Informal

WEDNESDAY 3 AUGUST 2005

IJCAI-05 Banquet

1930 - 2300 hours

The Royal Museum, Chambers Street

The IJCAI-05 Banquet will be held in the Main Hall of the Royal Museum, one of the National Museums of Scotland. The foundation stone of the building was laid by Prince Albert in 1861 and the building was completed in 1888. The Museum comprises 36 Galleries housing an extensive and varied collection ranging from Dolly the Sheep to coins and medals that once belonged to Mary Queens of Scots.

The pre-dinner drinks reception will be held on the balcony. Dinner will be followed by dancing to a traditional Scottish ceilidh.

Cost: (£58.75 (£50 + £8.75 VAT)

Dress: Informal

TOURS

Unfortunately all accompanying guest tours had to be cancelled due to lack of interest. Participants will be refunded for any tours booked.

If you would like to participate in an independent tour we would suggest that you book with Scottish Tours. These can be booked online at http://www.scottishtours.co.uk.

Alternatively tours can be booked at the St Andrews Bus Station or at the Tourist Information Centre at Waverley Station. The telephone number for information is 0871 200 8008.



IJCAI-05 SPECIAL MEETINGS AND EVENTS

IJCAI Trustees Meeting

Sunday 31 July, 0900 – 1800 hours and Thursday 4 August, 0830 – 1200 hours in Room A5 on the first floor at the Apex International Hotel, 31-35 Grassmarket, Edinburgh.

ECCAI Board Meeting

Sunday 31 July, 1000 – 1800 hours in Room 4.01 in the David Hume Tower at the University of Edinburgh.

ECCAI Fellows Lunch

Monday 1 August, 1200 – 1400 hours in Room G10 in the Adam Ferguson Building at The University of Edinburgh.

Al Journal Steering Committee Meeting

Tuesday 2 August, 0700 – 0900 hours at the Apex European Hotel, 90 Haymarket Terrace, Edinburgh.

AI Journal Editorial Board Meeting

Tuesday 2 August, 1230 – 1400 hours at the Apex European Hotel, 90 Haymarket Terrace, Edinburgh.

IFIP Technical Committee 12 Meeting

Tuesday 2 August, 1530 – 1730 hours in the Ochil Room on Level 1 of the EICC.

ECCAI General Assembly

Tuesday 2 August, 1730 – 2000 hours in the Harris Room on Level 1 of the EICC.

IJCAI Executive Committee Meeting

Wednesday 3 August, 1330 – 1800 hours in the Ochil Room on Level 1 of the EICC.

IJCAI Business Meeting

Thursday 4 August, 1245 – 1330 hours in the Ochil Room on Level 1 of the EICC. **The meeting is open to all attendees**.

International AI Societies Meeting

Thursday 4 August, 1530 – 1730 hours in the Ochil Room on Level 1 of the EICC.

The Business of Al Carrick Room

Friday 5 August 2005

A new one-day event will take place on Friday highlighting how companies are trying to commercialise from Artificial Intelligence Technology. The day will comprise invited panel speakers who are building a business based on AI technology. Each will describe the technology they are using and the business they are building. This will provide a forum to get an overview of how AI is being used in business and the issues in building a business using AI. Participation is open to all conference participants but will be limited to the first 40 who sign-up for the event.



SONY RESEARCH:
QRIO ROBOT TECHNICAL
DEMONSTRATION
Pentland Auditorium
Wednesday 3 August, 1745 hours
Friday 5 August, 1000 hours

SONY Research Japan will present its most cutting-edge robot, QRIO, in a technical demonstration highlighting the latest research. QRIO will show its capabilities in navigating in a complex environment with various

obstacles and different floor levels, and will also present its basic perception technologies like face learning and detection, sound source localisation, and speech recognition, finally entertaining the audience by playing soccer and a dance performance.

IJCAI-07 HYDERABAD, INDIA

January 6 - 12, 2007

IJCAI-07, the Twentieth International Joint Conference on Artificial Intelligence will be held January 6 - 12, 2007 in Hyderabad, India. It is sponsored by the International Joint Conferences on Artificial Intelligence (IJCAI). The Indian AI community is looking forward to hosting the first IJCAI in India. Hyderabad is among the largest metropolises of India and is the capital of the State of Andhra Pradesh. It has the atmosphere of an Arabian Nights fairy tale with elegant palaces, erstwhile stately homes and crowded bazaars. Hyderabad can be easily reached through air, rail & road and is well connected to almost all the cities of India and abroad. More details are at http://www.ijcai-07.org

For further information, please contact one of the following:

Ramon López de Mántaras

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Research Professor of the Spanish Council
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Artificial Intelligence Research Institute
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confchair07@ijcai.org

Manuela M. Veloso

Program Chair, IJCAI-07 Professor of Computer Science Carnegie Mellon University, 5000 Forbes Ave. Pittsburgh PA 15213 USA pcchair07@ijcai.org

Rajeev Sangal and Harish Mehta

Local Arrangements Co-Chairs, IJCAI-07

Rajeev Sangal

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Harish Mehta

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