# CP ICAPS KR NMR 2008 Conference Program

Sydney, September 13-19 2008



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## Sponsors

#### СР

- Association for Constraint Programming
- NICTA (Australia)
- University of New South Wales (Australia)
- Cork Constraint Computation Centre (Ireland)
- Intelligent Information Systems Institute, Cornell University (USA)
- ILOG (France)
- Springer-Verlag (Germany)

#### ICAPS

- National Science Foundation (USA)
- Defence Science and Technology Organisation (Australia)
- NICTA (Australia)
- NASA (USA)
- SRI International (USA)
- David E. Smith (USA)
- ILOG (France)
- IJCAI
- Adventium Labs (USA)
- ECCAI

#### KR

- KR Inc.
- Artificial Intelligence Journal
- NICTA (Australia)
- IBM Research (USA)
- ECCAI
- Large Knowledge Collider
- University of New South Wales (Australia)
- Meraka Institute (South Africa)

## **Room Locations**

<b>Ground Floor</b>	First Floor	Third Floor	<b>Fifth Floor</b>
Doric	Grand Lodge	Lodge 2	Carruthers
Corinthian	Banquet Hall	Lodge 3	Remington
Ionic		Lodge 4	
Tuscan		Ante Room 2	
		Carrington	

## Wireless Internet Access

Free wireless Internet access is available in parts of the conference venue. The name of the wireless network is *SMC-IRE* and its WPA password is *nicta2008*.

## Social Events

#### **Opening Reception**

The CP, ICAPS and KR conferences will be formally opened in the Opening Reception which will take place in the Banquet Hall of the conference venue SMC at 66 Goulburn Street on Monday, September 15 starting at 6:30pm. Drinks and snacks will be served.

#### Conference Dinner

The joint CP-ICAPS-KR conference dinner will take place on board MV Sydney 2000 on Wednesday starting at 17:45 and end at 20:45. The boarding will take place on Jetty 1 of King Street Wharf. Conference participants will be led there from outside the conference venue starting at 17:10.

It is easiest to walk to Liverpool St., continue down to Tumbalong Park, North to Darling Harbour, and then follow the shore past the IMAX Theatre and the Sydney Aquarium. This is an easy 20 minute walk.

## Meetings, Competitions and Other Events

International Planning Competition Monday September 15, 17:10-18:25 **Room: Ionic** Presentations of the Learning, Deterministic and Probabilistic planning competitions. **ICAPS** Community Meeting Tuesday September 16, 14:30-15:30 **Room: Grand Lodge** ICAPS Awards and presentations of the ICAPS'09 (Thessaloniki, Greece) and ICAPS'10 conferences. CPAIOR 2009 and CP 2009 Presentations Tuesday September 16, 17:00-17:15 **Room: Ionic** The organizers of CPAIOR 2009 and CP 2009 will tell us briefly about where the conferences will be, when, and what is happening there. **ACP** General Assembly Tuesday September 16, 17:15-18:45 **Room: Ionic** The Association of Constraint Programming executive committee will present information about the society, including planning, financials, and results of the 2008 election. **ICAPS** Festivus Wednesday September 17, 15:30-17:00 **Room: Grand Lodge** Presentations by a panel of plaintiffs - to air the most pressing purely technical or techno-sociological grievances about the planning and scheduling community - followed by an open discussion. **ACP Excellence in Constraint Programming** Thursday September 18, 14:00-15:00 **Room: Ionic** The Association of Constraint Programming will hand out the awards for the best papers at the conference, as well as the best thesis in constraint programming in 2007. Finally the ACP Excellence in Constraint Programming Award will be given to Alain Colmerauer for his outstanding and fundamental contributions to the field. He will then present a talk about his perspective on Constraint Programming. **CP** Solver Competition Thursday September 18, 15:30-16:00 **Room: Tuscan** The organizers of the Third International CSP Solver Competition (http://cpai.ucc.ie/08/) and MiniZinc Challenge 2008 (http://www.g12.csse.unimelb.edu.au/minizinc/challenge.html) will present the results of their competitions. **KR** Challenges Friday September 19, 11:10-12:10 **Room: Doric** 

## Invited Talks

#### KR Invited Talk, Monday 17:00-18:00; Room: Doric Great Moments in KR

Norman Foo

University of New South Wales, Australia

CP-KR Invited Talk, Tuesday 9:00-10:00; Room: Grand Lodge

Satisfiability, Knowledge Compilation and the Journey Towards Universal Reasoning Engines

Adnan Darwiche

University of California Los Angeles, USA

The development of universal reasoning engines has been a main objective of AI since its very early days. The vision here is to relieve system developers from having to worry about reasoning algorithms, focusing only on capturing the necessary knowledge, while delegating algorithmic considerations to these engines. Few decades after this original vision was first conceived, the field of AI is starting to bear its fruits, initially through SAT solvers, and more recently through knowledge compilers (and related model counters).

In this talk, I will discuss some of the progress in realizing this vision, highlighting both successes and missed opportunities. For example, on the satisfiability front, I will present a semantics for modern SAT solvers, which is somewhat distant from how these solvers are commonly understood. I will argue that the lack of this and similar semantics could be the reason behind the lack of recent leaps in SAT solving, which have been sought after since the zchaff solver was introduced many years ago. On the knowledge compilation front, I will review some of the key advancements, especially in relation to SAT solving and model counting, and point to some of the major gaps between what the theory says is possible and what current practice allows. I will argue that bridging this gap requires some novelties, especially in how systematic search is currently practiced. I will also discuss some recent breakthroughs that seem to have brought us closer to bridging this gap.

#### ICAPS Invited Talk, Tuesday 13:30-14:30; Room: Grand Lodge Computational Voting Theory: Of the Agents, By the Agents, For the Agents Jeffrey S. Rosenschein

The School of Engineering and Computer Science, The Hebrew University of Jerusalem, Israel

Classical social choice theory deals with the design and analysis of methods for collective decision making. Heterogeneous, self-interested agents may have conflicting preferences, which can be aggregated by voting over possible outcomes. The winning outcome is then designated by a voting rule, a function from the preferences of the voters to the set of candidates.

Recent years have seen a surge of interest in the computational aspects of social choice, motivated by applications of voting theory to electronic commerce, electronic voting, and multiagent systems. The candidates in automated multiagent systems can be beliefs, joint plans, schedules, movies, or indeed entities of almost any conceivable sort. Computational voting theory is concerned both with the application of computer science techniques to the study of social choice mechanisms, and with the importing of social choice concepts into computing.

This talk will present an overview of some of the issues that have been dealt with in recent years within computational voting theory, including distortion, robustness, the use of complexity as a guard against manipulation, the automated design of voting rules, and the calculation of power indices.

CP-ICAPS Invited Talk, Wednesday 9:00-10:00; Room: Grand Lodge How to Relax John Hooker Tepper School of Business, Carnegie Mellon University, USA

Relaxation is a theme that occurs in many problem solving methods. It is often associated with optimization, but relaxation plays an equally important role in finite-domain constraint programming and other discrete methods. This talk surveys a wide variety of relaxation methods, including linear relaxation and cutting planes, Lagrangean relaxation, the domain store and related relaxations, state space relaxation, relaxations in decomposition methods, as well as nonserial dynamic programming, mini buckets, and other relaxations based on simplifying the primal graph. Recognizing the role of relaxation can suggest improvements based on strengthening the relaxation. Consistency maintenance, for example, in effect strengthens relaxations. Other approaches include the use of such knowledge compilation devices as and/or trees and multivalued decision diagrams, and the solution of a relaxation dual problem.

#### CP Invited Talk, Wednesday 14:00-15:00; Room: Ionic Back to the Complexity of Universal Programs Alain Colmerauer l'Université de la Méditerrané, France

The talk discusses a framework enabling one to define and determine the complexity of various universal programs U for various machines. The approach consists of first defining the complexity as the average number of instructions to be executed by U, when simulating the execution of one instruction of a program P with input x. To obtain a complexity that does not depend on P or x, we introduce the concept of an introspection coefficient expressing the average number of instructions executed by U, for simulating the execution of one of its own instructions. We show how to obtain this coefficient by computing a square matrix whose elements are numbers of executed instructions when running selected parts of U on selected data. The coefficient then becomes the greatest eigenvalue of the matrix. We illustrate the approach using two examples of particularly efficient universal programs: one for a three-symbol Turing Machine (blank symbol not included) with an introspection coefficient of 26.27.

#### KR Invited Talk, Wednesday 14:00-15:00; Room: Doric Beyond Nash Equilibrium: Solution Concepts for the 21st Century Joe Halpern Cornell University, USA

Nash equilibrium is the most commonly-used notion of equilibrium in game theory. However, it suffers from numerous problems. Some are well known in the game theory community; for example, the Nash equilibrium of repeated prisoner's dilemma is neither normatively nor descriptively reasonable. However, new problems arise when considering Nash equilibrium from a computer science perspective: for example, Nash equilibrium is not robust (it does not tolerate "faulty" or "unexpected" behavior), it does not deal with coalitions, it does not take computation cost into account, and it does not deal with cases where players are not aware of all aspects of the game. Solution concepts that try to address these shortcomings of Nash equilibrium are discussed.

ICAPS-KR Invited Talk, Thursday 9:00-10:00; Room: Grand Lodge Preferences, Planning, and Control

**Ronen Brafman** 

#### Department of Computer Science, Ben-Gurion University, Israel

Preference handling is a problem of much theoretical and practical interest. In planning this issue arises naturally when one considers richer notions of goals, as well as over-subscribed planning problems. In knowledge representation it is a core issue with much recent work on preference languages and algorithms. In system design, preferences can be used to control choices and provide a personalized experience or adapt to varying context.

In this talk I will discuss some of my work, together with many colleagues, in these areas. I will consider some of the challenges we face when designing a preference specification formalism and describe a simple graphical input language CP-nets - which attempts to address some of these challenges. Surprisingly, CP-nets are closely related to an important analysis tool in planning - the causal graph, and the problem of inference in these networks has important links to the question of the complexity of plan generation. Moreover, the problem of finding a preferred plan given a rich goal specification can be solved by using techniques developed for constrained optimization in CP-nets. But CP-network are inherently a propositional specification language, whereas many control applications require a relational language. Time permitting, I will explain why this problem arises naturally in intelligent control applications. I will show how some recent and richer relational languages can be used to address this problem, and how closely they are related to relational preference models.

#### CP T1: Current issues on Max-SAT

#### Javier Larrosa

#### Monday 15:30-17:00; Room: Lodge 4

Propositional satifiability (SAT) is a research field strongly related to CP. SAT solvers have improved dramatically in the last years and are currently used to solve problems in many industrial applications. The main reasons for this success are the use of an extremely simple language (CNF) for which solvers can be highly optimized. The success story of SAT solvers has led to the study of several extensions of propositional logic, and Max-SAT is arguably the most prominent one. In short, Max-SAT is the natural extension of SAT to model and solve optimization problems (in contrast to decision problems). It has attracted a lot of interest and, only from the work done in the last 5 years, current solvers outperform previous ones by several orders of magnitude. The purpose of the tutorial is to overview this recent research with special emphasis in the algorithmic aspects and its potential applications. The tutorial will cover with unified notation the essential ideas behind modern solvers.

# CP T2: ILOG CP Optimizer: An Automatic Search and Modeling Framework for Detailed Scheduling Didier Vidal

#### Monday 10:30-12:30; Room: Tuscan

In this software tutorial we present a modeling framework and automatic search for detailed scheduling problems. We describe a new modeling framework based on a compact set of algebraic concepts that can be used to model a wide variety of hard and soft scheduling problems, while taking advantage of work breakdown structures. Together with a tunable search engine, models can be simply run and solved with default settings or with adjusted engine parameters and declarative search phases, to rapidly produce quality schedules.

#### ICAPS T1: Abstraction Heuristics for Planning: PDBs and Beyond

#### Patrik Haslum, Malte Helmert

#### Monday 8:30-12:20; Room: Grand Lodge

Pattern databases (PDBs) were a breakthrough in the automatic construction of admissible heuristics for singleagent search problems. However, PDBs are also an instance of a more general class of heuristics based on computing and storing solutions to an abstraction of the search problem. Both PDBs and other abstraction heuristics have been applied to classical planning, and are probably the currently most effective approach to costoptimal planning.

This tutorial will describe abstraction-based heuristics in general, and PDBs and their application to planning in particular. It is intended for researchers in planning interested in heuristics, but - we hope - may also be of interest to researchers familiar with PDBs in heuristic search and interested in the particular challenges of applying them to domain-independent planning.

#### ICAPS T2: First-Order Planning Techniques

#### Scott Sanner, Kristian Kersting

#### Monday 13:10-17:00; Room: Grand Lodge

First-order classical (and probabilistic) planning techniques allow problems stated in (P)STRIPS or (P)PDDL to be solved independently of a particular set of domain objects (e.g., a logistics problem could be solved irrespective of the actual number of trucks, cities, and packages). The key to such approaches is to translate a (P)STRIPS or (P)PDDL problem description to a fully first-order representation and then to generalize standard solution approaches to manipulate an abstracted logical description of the problem in a way that minimally partitions the state and action space. In this tutorial, we provide an introduction to first-order planning techniques for both classical and probabilistic problems and survey recent specialized solution approaches and extensions to this framework.

#### ICAPS T3: Constraint Processing for Planning and Scheduling Roman Barták

#### Monday 8:30-12:20; Room: Ionic

Constraint satisfaction emerged from AI research and nowadays it contributes to many areas like planning, scheduling, and assignment problems, circuit design, network management and configuration, interactive graphics, molecular biology etc. The tutorial explains major constraint satisfaction algorithms with emphasis put on using constraints in planning and scheduling.

The goal of the tutorial is to explain mainstream constraint satisfaction techniques used in current constraint solvers and to show how these techniques are exploited when solving planning and scheduling problems. The tutorial is divided into two main parts. In the first part the constraint satisfaction technology is explained in general – the mainstream search and inference algorithms are presented. The second part is specialised to planning and scheduling problems. The constraint models of these problems will be described together with several inference and search techniques developed for these models.

#### ICAPS T4: External-Memory Graph Search Stefan Edelkamp, Eric Hansen, Shahid Jabbar, Rong Zhou

#### Monday 13:10-17:00; Room: Ionic

Graph-search algorithms such as A\* and its variants play an important role in AI planning and problem-solving, as well as in other areas of computer science. Traditionally, their scalability is limited by the amount of RAM available to store generated nodes for use in duplicate detection. However, recent work shows that their scalability can be dramatically improved by using external memory, such as disk, in addition to RAM, although this requires very different search strategies to overcome the six orders-of-magnitude difference in random-access speed between RAM and disk.

This tutorial provides an overview of external-memory graph search strategies and techniques, and discusses how to integrate them in algorithms for planning, scheduling, model checking, and other search problems with very large state spaces. The tutorial is directed at AI researchers interested in graph-search algorithms and their applications. The only prerequisite is familiarity with A\* graph search.

#### KR T1: KR Techniques for General Game Playing Michael Thielscher

#### Monday 13:30-15:00; Room: Doric

A General Game Player is a program that accepts formal descriptions of arbitrary games and plays these games without human intervention. One of the grand challenges for Artificial Intelligence, General Game Playing requires to combine techniques from a wide range of areas including knowledge representation, automated reasoning, heuristic search, planning, and learning. This tutorial will focus on the challenges for Knowledge Representation and Reasoning raised by General Game Playing:

\* Formalizing game rules

\* Mapping game descriptions to efficient representations

\* Extracting knowledge from game descriptions

\* Proving properties of games.

#### **KR T2: Argumentation Systems**

**Tony Hunter** 

#### Monday 15:30-17:00; Room: Doric

Argumentation systems are being developed with the aim of reflecting how human argumentation uses conflicting information to construct and analyse arguments. Argumentation involves identifying arguments and counterarguments relevant to an issue (e.g. What are the pros and cons for the safety of mobile phones for children?). Argumentation may also involve weighing, comparing, or evaluating arguments (e.g. What sense can we make of the arguments concerning mobile phones for children?) and it may involve drawing conclusions (e.g. A parent answering the question "Are mobile phones safe for my children?"). In addition, argumentation may involve convincing an audience (e.g. A politician making the case that mobile phones should be banned for children because the risk of radiation damage is too great). Formalizations of argumentation have been extensively studied, and some basic principles have been established. In Abstract argumentation, originally proposed in the seminal work by Dung, arguments are treated as atomic, and a graph-based formalization is used where each node is an argument, and each arc denotes one argument attacking another argument. In contrast, logic-based formalizations assume a set of formulae and then exhaustively lay out arguments and counterarguments, where a counterargument either rebuts (i.e. negates the claim of the argument) or undercuts (i.e. negates the support of the argument). In the logic-based approach, an argument is normally defined as a pair (X,p) where X is a minimal consistent subset of the knowledgebase that entails p. A variety of underlying logics have been considered for the entailment and consistency conditions including classical logic, defeasible logics, and description logics. Both the graph-based and logic-based approaches provide principled ways of determining which arguments are warranted (i.e. undefeated). Recent topics of research in argumentation systems include the development of algorithms and implementations, the formalization of rhetorical aspects of argumentation, and the formalization of argument-based dialogue systems. In this tutorial, we will consider both graph-based and logic-based formalizations of argumentation, introducing some of the basic concepts, and reviewing a range of proposals and results.

## NMR – Saturday

	Room: Doric	Room: Corinthian
	Coffee	10:00 - 10:30
	A1: Actions and Belief Change Chair: Sebastian Sardina	B1: Declarative Programming Paradigms and Systems for NMR Chair: TBA
- 12:00	Activity Recognition with Intended Actions, Answer Set Programming Approach, <i>Gabaldon</i>	A Versatile Intermediate Language for Answer Set Programming, <i>Gebser, Janhunen, Ostrowski, Schaub,</i>
:30 -	Properties of Knowledge Forgetting, Zhang, Zhou	Thiele
10	Embedding General Default Logic into the Logic of GK, <i>Zhou, Lin, Zhang</i>	Engineering an Incremental ASP Solver, Gebser, Kaminski, Kaufmann, Ostrowski, Schaub, Thiele
		gidL: A Grounder for $\mathrm{FO}^+$ , <i>Wittocx, Marien, Denecker</i>
	Lunch	12:00 – 13:30
	A2: Actions and Belief Change Chair: Dongmo Zhang	B2: Declarative Programming Paradigms and Systems for NMR Chair: Alfredo Gabaldon
15:00	Integrating Golog and Planning: An Empirical Evaluation, <i>Claßen, Engelmann, Lakemeyer,</i> <i>Röger</i>	Defeasible Knowledge and Argumentative Reasoning for 3APL Agent Programming, <i>Gottifredi, García,</i> <i>Simari</i>
13:30 -	A diff-Based Merging Operator, Everaere, Konieczny, Marquis	Using Collaborations for Distributed Argumentation
	Degrees of Recovery and Inclusion in Belief Base Dynamics, <i>Ribeiro, Wassermann</i>	Kern-Isberner, Simari
		Heuristics in Conflict Resolution, Drescher, Gebser, Kaufmann, Schaub
	Coffee	15:00 - 15:30
- 16:30	Inv Doi	ited Talk ·ic Room
15:30 -	Alexander Bochman Default Logic Generalized and Simplified	

## NMR – Sunday and Monday

#### Sunday, September 14

	Room: Doric	Room: Corinthian	
	Coffee 10:	00 - 10:30	
	E1: Argument, Dialogue and Decision Chair: Gerard Vreeswijk	F1: Applications Chair: Tomi Janhunen	
30	An Abstract Argumentation Framework for Handling Dynamics, <i>Rotstein, Moguillansky, García, Simari</i>	Anton: Answer Set Programming in the Service of Music, <i>Boenn, Brain, De Vos, ffitch</i>	- 11:30
:30 - 12	Application of Possibilistic Stable Models to Decision Making, <i>Forth</i>	Tools for Representing and Reasoning about Biological Models in Action Language <i>C</i> ,	10:30
10	Towards Enforcement of Confidentiality in Agent Interactions, <i>Biskup, Kern-Isberner, Thimm</i>	Dworschak, Grote, Koenig, Schaub, Veber	
	Formalizing Accrual in Defeasible Logic Programming, <i>Gómez Lucero, Chesñevar, Simari</i>		
	Lunch 12:30 – 13:30		
	C1: Preferences Chair: Kewen Wang	D1: Foundations of NMR and Uncertainty Chair: Frank Wolter	
- 15:00	Preferred Answer Sets Supported by Arguments, Sefránek	A Characterization of an Optimality Criterion for Decision Making under Complete Ignorance, <i>Lar</i> <i>Konieczny, Marauis</i>	·bi,
13:30	Distributed Defeasible Reasoning in Multi-Context Systems, <i>Bikakis, Antoniou</i>	Specificity Principle in Querying Databases with Preferences, <i>Kaci, da Silva Neves</i>	
	Defeasible Logic to Model n-persons Argumentation Game, <i>Pham, Thakur, Governatori</i>	Simple Generalized Default Theories, Bochman	
	Coffee 15:	00 - 15:30	
15:3 - 16:30	Invited Talk Doric Room Fangzhen Lin A Theory of Forgetting and its Applications		

## Monday, September 15

	Room: Doric	Room: Corinthian	
	Co	offee 10:00 – 10:30	
	C2: Preferences	A3: Actions and Belief Change	
	Chair: Kewen Wang	Chair: Sebastian Sardina	
2:30	Incorporating a Qualitative Ranked Preference System into Planning, <i>Schmidt</i> , <i>Delgrande</i>	Model-Based Contractions for Description Logics, Moguillansky, Falappa, Simari	
0:30 - 1	Learning Preference Relations over Combinatorial Domains, <i>Lang, Mengin</i>	Consistency Maintenance of Plausible Belief Bases Based on Agents Credibility, <i>Tamargo, García, Falappa, Simari</i>	
1	On Planning with Preferences in HTN, Sohrabi, McIlraith	Action Theory Revision in Dynamic Logic, Varzinczak	
		Judgment Aggregation with Rule Confidence Scores, Benamara, Kaci, Pigozzi	
	Lunch 12:30 – 13:30		

## Sunday, September 14, 2008 – ICAPS Workshops

	CP + ICAPS W1 – Constraint Satisfaction for Planning and Scheduling Room: Ionic	ICAPS W2 – Knowledge Engineering for Planning and Scheduling Room: Tuscan	
8:50	Introduction and Welcome	Introduction and Welcome	8:50
9:00 - 10:00	A New Admissible Heuristic for the Job Shop Scheduling Problem with Total Flow Time, <i>Sierra, Varela</i> Inferring and Applying Safety Constraints to Guide an Ensemble of Planners for Airspace Deconfliction, <i>Rebguns, Green, Levine, Kuter,</i> <i>Spears</i>	The ANML Language, <i>Smith, Frank, Cushing</i> Translating PDDL2.2. into a Constraint-based Variable/Value Language, <i>Bernardini, Smith</i>	9:00 - 10:00
	Coffee 10:00 – 10:30	Coffee 10:00 – 10:30	
10:30 - 12:30	A Variable Elimination Approach for Optimal Scheduling with Linear Preferences, <i>Meuleau</i> , <i>Morris, Yorke-Smith</i> Speeding Up the Resource Envelope Computation for Activities with Linear Resource Impact, <i>Morris, Frank</i> Conditional and Composite Temporal CSPs, <i>Mouhoub, Sukpan</i> Efficient Message Passing and Propagation of Simple Temporal Constraints: Results on Semi- Structured Networks, <i>Bui, Tyson, Yorke-Smith</i>	<ul> <li>Extracting State Constraints from UML Planning Models, Gomes, Vaquero, Silva, Tonidandel</li> <li>Generation of Macro-operators via Investigation of Actions Dependencies in Plans, Chrpa</li> <li>Hierarchical Path Planning for Multi-size Agents in Heterogenous Environments, Harabor, Botea</li> <li>Combining Domain-Independent Planning and HTN Planning: The Duet Planner, Gerevini, Kuter, Nau, Saetti, Waisbrot</li> </ul>	10:30 - 12:30
	Lunch 12:30 – 14:00	Lunch 12:30 – 14:00	
14:00 - 15:00	How to Model Planning and Scheduling Problems using Timelines, <i>Verfaillie, Pralet</i> Search Algorithms for Minimal Cost Repair Problems, <i>Fukunaga</i>	Generating Random Datasets for Dynamic Resource Scheduling Problems, <i>Haas, Havens</i> Validation and Verification Issues in a Timeline-based Planning System, <i>Cesta, Finzi,</i> <i>Fratini, Orlandini, Tronci</i>	14:00 - 15:00
		Coffee 15:00 – 15:30	
		Panel Discussion Past, present and future of ICKEPS	15:30 - 17:00

## Sunday, September 14, 2008 – ICAPS Workshops

	ICAPS W4 – Multiagent Planning Room: Lodge 2	ICAPS W6 – Oversubscribed Planning and Scheduling Room: Lodge 3	
8:50	Opening Remarks		
9:00 - 10:00	Constraint-based Multi-agent Path Planning, Ryan	Welcome – Introduction to Workshop	9:00
	Coordinating Agent Plans Through Distributed Constraint Optimization, <i>Ottens, Faltings</i> From One to Many: Planning for Loosely Coupled Multi-Agent Systems, <i>Brafman,</i> <i>Domshlak</i>	Invited Talk Mark Giuliano Tools and Techniques for Achieving Resource Balanced Long Range Plans for the Hubble Space Telescope	9:15 - 10:05
	Coffee 10:00 – 10:30	Coffee 10:05 – 10:35	
10:30 - 12:30	Invited Talk Brian Williams Multi-agent Planning and Execution for Model- based Autonomous Systems. Distributed Planning in Stochastic Games with Communication, Burkov, Chaib-draa Stackelberg Equilibrium in Robot Platooning, Canu, Matthieu, Abdel-illah Dealing with Superfluous Numbers of Agents, Kalofonos, Norman	Using Automated Planning and Scheduling for Onboard Rover Commanding, <i>Estlin, Gaines,</i> <i>Chouinard, Castano, Bornstein, Judd, Anderson</i> HTN Planning with Quantitative Preferences via Heuristic Search, <i>Sohrabi, Baier, McIlraith</i> A Distance Measure Between Goals for Oversubscription Planning, <i>Garcia-Olaya, de la</i> <i>Rosa, Borrajo</i> Real-time Bayesian Search Control for MDPs, <i>Sanner, Goetschalckx, Driessens</i>	10:35 - 12:05
	Lunch 12:30 – 13:40	Lunch 12:05 – 13:30	
	Exploiting C-TÆMS Models for Policy Search, Clement, Schaffer	Runtime Goal Selection with Oversubscribed Resources, <i>Rabideau, Chien</i>	
13:40 - 15:00	Coordinating Highly Contingent Plans: Biasing Distributed MDPs Towards Cooperative Behavior, <i>Godman, Musliner, Durfee, Boddy</i> What's Worth Memorizing: Attribute-based Planning for DEC-POMDPs, <i>Amato, Zilberstein</i> Planning in Decentralized POMDPs with Predictive Policy Representations, <i>Boularias,</i> <i>Chaib-draa</i>	Advising Busy Users on How to Cut Corners in Uncertain Settings, <i>Varakantham, Smith</i> Optimal Net-Benefit with BDDs, <i>Edelkamp,</i> <i>Kissmann</i> Learning to Improve Earth Observation Flight Planning, <i>Morris, Oza, Keely, Kurklu</i>	13:30 - 15:00
	Coffee 15:00 – 15:30	Coffee 15:00 – 15:30	
15:30 - 16:40	Panel Discussion Closing Remarks	Workshop Wrap-up	15:30

## Sunday, September 14, 2008 – CP Workshops

	CP + ICAPS – Constraint Satisfaction for Planning and Scheduling Room: Ionic	CP W2 – Counting Problems in CP and SAT, and Other Neighbouring Problems Room: Lodge 4	
8:50	Introduction and Welcome	Introduction	8:30
9:00 - 10:00	A New Admissible Heuristic for the Job Shop Scheduling Problem with Total Flow Time, <i>Sierra, Varela</i> Inferring and Applying Safety Constraints to Guide an Ensemble of Planners for Airspace Deconfliction, <i>Rebguns, Green, Levine, Kuter,</i> <i>Spears</i>	Extended Talk V. Gogate 1 <sup>st</sup> part: Approximate Solution Sampling (and Counting) on AND/OR Search Space, Gogate, Dechter 2 <sup>nd</sup> part: Report from the UAI-2008 Evaluation, Darwiche, Dechter, Choi, Gogate, Otten	8:45 - 10:00
	Coffee 10:00 – 10:30	Coffee 10:00 – 10:30	
10:30 - 12:30	<ul> <li>A Variable Elimination Approach for Optimal Scheduling with Linear Preferences, <i>Meuleau</i>, <i>Morris, Yorke-Smith</i></li> <li>Speeding Up the Resource Envelope Computation for Activities with Linear Resource Impact, <i>Morris, Frank</i></li> <li>Conditional and Composite Temporal CSPs, <i>Mouhoub, Sukpan</i></li> <li>Efficient Message Passing and Propagation of Simple Temporal Constraints: Results on Semi- Structured Networks, <i>Bui, Tyson, Yorke-Smith</i></li> </ul>	Using Model Counting to Find Optimal Distinguishing Tests, <i>Heinz, Sachenbacher</i> Exact and Approximate Methods for Counting Solutions in CSPs, <i>Favier, Jegou</i> Refined Bounds for Instance-Based Search Complexity of Counting and Other #P Problems, <i>Otten, Dechter</i>	10:30 – 12:30
	Lunch 12:30 – 14:00	Lunch 12:30 – 13:40	
14:00 - 15:00	How to Model Planning and Scheduling Problems using Timelines, <i>Verfaillie, Pralet</i> Search Algorithms for Minimal Cost Repair Problems, <i>Fukunaga</i>	Distributional Importance Sampling for Approximate Weighted Model Counting, <i>Davies, Bacchus</i> New Algorithm fo Computing Upper Bounds for Functional E-MAJSAT, <i>Pipatsrisawat</i> , <i>Darwiche</i>	13:40 - 15:00
		Coffee 15:00 – 15:30	
		Discussion about future research directions for counting problems	15:30

## Sunday, September 14, 2008 – CP Workshops

	CP W8 – Quantification in Constraint Programming Room: Carrington	CP W9 – CSP Solver Competition Room: Ante Room 2	
8:45	Welcome Talk	Introduction to the Workshop	8:45
9:00 - 10:00	What Makes for Hard QBF Encodings?, <i>Pulina, Tacchella</i> Unblockable QCSP+ : A Special Case of Quantified Problems, <i>Vautard</i>	Invited talk Emmanuel Hebrard Implementing a Constraint Solver: A Case Study	9:00 - 10:00
	Coffee 10:00 – 10:30	Coffee 10:00 – 10:30	
10:30 - 12:00	Realtime Online Solving of Quantified CSPs, Stynes, Brown sQueezeBF: An Effective Preprocessor for QBF, Giunchiglia, Marin, Narizzano	Presentation of a few solvers, including Choco, Toulbar2	10:30 - 11:00
	Symmetry Breaking, Katsirelos, Walsh	Presentation of the results of the competition	11 - 11:40
12:00 - 12:30	Open Discussion	Discussion about the future of the competition	11:40 - 12:30
	Lunch – from 12:30	Lunch – from 12:30	

## Monday, September 15, 2008 – ICAPS Workshops

	ICAPS W3 – Scheduling and Planning Applications Room: Lodge 2	ICAPS W5 – Reality Check for Planning and Scheduling under Uncertainty Room: Lodge 3	
8:30	Welcome and Introduction	~	
8:45 - 10:00	Improving QoS in Computational Grids through Schedule-based Approach, <i>Klusacek, Rudova</i> Lean Software Development Domain, <i>Udo, Vaquero,</i> <i>Silva, Tonidandel</i> Experiences with Planning for Natural Language Generation, <i>Koller, Petrick</i>	Welcome How to Spice up your Planning under Uncertainty Research Life, <i>Sanner</i> The Value(s) of Probabilistic Plans, <i>Bryce</i>	9:00 - 10:00
	Discussion		
	Coffee 10:10	- 10:30	
	The Application of Planning to Power Substation Voltage Control, <i>Bell, Coles, Fox, Long, Smith</i>	Regressing Deterministic Plans for MDP Function Approximation, <i>Kolobov, Mausam, Weld</i>	
0 - 12:00	SELFPLANNER: Planning your Time!, <i>Refanidis,</i> Alexiadis	Propositional Probabilistic Planning-as- Satisfiability Using Stochastic Local Search, Robinson, Gretton, Pham, Sattar	0 - 12:00
10:3	Emergency Landing Planning for Damaged Aircraft, Meuleau, Plaunt, Smith	Heuristic Search Ideas for Deterministic and Probabilistic Problems, <i>Dai</i>	10:3
	Discussion		
	Lunch 12:00	- 13:30	
	Looking for MrSPOCK: Issues in Deploying a Space Application, <i>Cesta, Cortellessa, Fratini, Oddi</i>	Appropriate Commitment Reactive Planning, Albert, Turner, Turner	
- 15:00	Supporting Clinical Processes and Decisions by Hierarchical Planning and Scheduling, <i>Fdez-Olivares,</i> <i>Castillo, Cozar, Garcia-Perez</i>	Reasoning about Executional Uncertainty to Strengthen Schedules, <i>Hiatt, Zimmerman, Smith,</i> <i>Simmons</i>	- 15:00
13:30 -	Planning and Monitoring Solar Array Operations on the ISS, <i>Reddy, Iatauro, Kürklü, Boyce, Frank, Jónsson</i>	On-line Anticipatory Planning, <i>Hubbe, Ruml,</i> Yoon, Benton, Do	13:30 -
	An ASPEN Application: Automating Ground Operations for Orbital Express, <i>Chouinard, Knight,</i> <i>Jones, Tran</i>		
	Coffee 15:00	- 15:30	
	Decision-Making On-board an Autonomous Agile Earth-Observing Satellite, <i>Beaumet, Verfaillie,</i> <i>Charmeau</i>	Planning in the Face of Frequent Exogenous Events, <i>Fritz, McIlraith</i>	
17:00	An Intelligent Agent for Autonomous Lunar Exploration, <i>Frank</i>	Mixed Probabilistic and Nondeterministic Factored Planning through MDPs with Set-Valued Transitions, <i>Trevizan, Cozman, de Barros</i>	17:00
15:30 - 3	ATHLETE's Feet: Multi-Resolution Planning for a Hexapod Robot, Smith, Barreiro, Chavez-Clemente, Smith, SunSpiral	Extending PPDDL1.0 to Model Hybrid Markov Decision Processes, <i>Teichteil-Konigsbuch</i>	15:30 - 3
	Discussion		
	Round-table Discussion – 30 minutes Domains, deployment, and directions		

## Monday, September 15, 2008 – CP Workshops

	CP W6 – Preferences and	CP W3/W4 – Constraint	CP W7 – Symmetry and Constraint	
	Soft Constraints	Modelling and Reformulation:	Satisfaction Problems	l
	Room: Lodge 4	and Local Search Techniques in	Room: Ante Room 2	1
		Constraint Satisfaction	Opening Remarks	8.50
		<b>Room:</b> Carrington	Dynamic Posting of Static Symmetry	0.00
8:45	Introduction	0	Breaking Constraints <i>Katsirelos</i>	0
	Invited Talk	Invited Talk	Narodytska, Walsh	0:0
9:00 - 10:00	<i>Tomas Werner</i> Linear Programming Relaxation Approach to Soft	<i>Meinolf Sellmann</i> The Connection of Local Search and Learning	Lightweight Dynamic Symmetry Breaking, Mears, Garcia de la Banda, Demoen, Wallace	9:00 - 1
	Coffee 1	0.00 10.20	Coffee 10:00 - 10:30	
		0:00 - 10:30	Model Restarts for Structural Symmetry	ĺ
	multi-objective optimisation, <i>Bistarelli, Gadducci, Larrosa</i> .	Rome: Solving Zinc Models by Various Solvers. <i>Becket. Brand.</i>	Dominance in Incomplete Solvers for the	30
	Rollon	Brown, Duck, Feydy, Fischer, Huang, Marriott, Nethercote,	Multiple Knapsack Problem, <i>Fukunaga</i>	- 12:3
	Imprecise Soft Constraint	Puchinger, Rafeh, Stuckey,	Symmetry and Non-Monotonic Inference,	:30
	Problems, Gelain, Pini, Rossi,Venable, Wilson	Wallace	Benhamou, Siegel	10
0		Automatically Detecting	Symmetry Breaking by Metaheuristic	ĺ
2:3	Adaptive Domain Abstraction	Neighbourhood Constraint	Search, Hnich, Rossi, Tarim	
-	in a Soft-constraint Message-	Interactions using Comet,	Lunch 12:30 – 14:00	
30	passing Algorithm, <i>Maier</i> ,	Andrew, Levine	Invited Talk	0
10:	Sachenbacher			5:0
		Constructive vs Perturbative	Karem Sakallah	- 1
	Marginal Consistency:	Local Search for General Integer	Faster Symmetry Discovery using Sparsity	00
	Unifying Constraint	Linear Programming, Verachi,	of Symmetries	14:
	Somiring Warn an	Prestwich		
	Seminings, werner	A Varaatila Intermadiata	Confluence of Reduction Rules for	
		I anguage for Answer Set	Lexicographic Ordering Constraints,	0:0
		Programming Gebser Janhunen	Graylana, Miguel, Koney-Dougal	- 1(
		Ostrowski Schaub Thiele	Symmetry Preaking and Propehing	- 0(
	Lunch 1	2:30 - 13:30	Constraints Mears Garcia de la Randa	5:(
	Russian Doll Search with Tree	Efficient Propagation of	Wallace Demoen	-
	Decomposition, Allouche, de	Disjunctive Constraints using	Coffee 16:00 – 16:30	<u> </u>
	Givry. Sanchez. Schiex	Watched Literals. Jefferson.		
:0(		Petrie	Informal Discussion on Symmetry	
- 15	A Decomposition Strategy to		Aloul. Benhamou. Sais	5:3(
	Reduce the Search Space of	Generalizing Backdoors, Rossi,		16
0				1
3:30	Solutions of WCSP,	Prestwich, Tarim, Hnich		
13:30	Solutions of WCSP, Bennaceur, Lecoutre, Roussel	Prestwich, Tarim, Hnich		<u> </u>
13:30	Solutions of WCSP, Bennaceur, Lecoutre, Roussel	Prestwich, Tarim, Hnich Kakuro as a Constraint Problem,		<u> </u>
13:30	Solutions of WCSP, Bennaceur, Lecoutre, Roussel	Prestwich, Tarim, Hnich Kakuro as a Constraint Problem, Simonis		<u> </u>

# Tuesday, September 16, 2008 – Morning

	ICAPS S1 – Applications I Room: Ionic Chair: Sylvie Thiébaux	ICAPS S2 – Uncertainty in Planning and Scheduling Room: Lodge 2 Chair: Sven Koenig	
	Planning for Modular Printers: Beyond Productivity, <i>Do, Ruml,</i> <i>Zhou</i>	Using Classical Planners to Solve Nondeterministic Planning Problems <i>Kuter</i> . Nau. Reisner.	
10:00	Scheduling Meetings at Trade Events with Complex Preferences,	Goldman	
:30 -	Ernsi, singn, weiskircher	Climbing, Wu, Kalyanam, Givan	
8	of Combination-Appointments in Hospitals, Vermeulen, Bohte, Elkhuizen, Bakker, La Poutra	Rank-Dependent Probability Weighting in Sequential Decision Problems under Uncertainty,	
	A Probabilistic Planner for the	Connet, Spanjaara	
	Problem, <i>Benaskeur, Kabanza,</i>	Subject to Resource and Duration	
	Beaudry, Beaudoin	Uncertainties, Fu, Lau, Xiao	
		Coffee 10:00 – 10:30	
	ICAPS S3 – Multiagent planning and scheduling	ICAPS S4 – Planning using POMDPs	KR S1 – Logic Programming Room: Doric
	Room: Grand Lodge	Room: Lodge 2	Chair: Tomi Janhunen
	Chair: I BA	Chair: Eric Hansen	Computing Loops with at Most
	Criticality Metrics for Distributed Plan and Schedule Management, <i>Maheswaran, Szekely</i>	Efficient ADD Operations for Point-Based Algorithms, Shani, Poupart, Brafman, Shimony	One External Support Rule, Chen, Ji, Lin
:30 - 12:00	Effective Information Value Calculation for Interruption Management in Multi-Agent Scheduling Sarne, Grosz, Owotoki	Bounded-Parameter Partially Observable Markov Decision Processes, <i>Ni, Liu</i>	Conflict-Driven Disjunctive Answer Set Solving, Drescher, Gebser, Grote, Kaufmann, König, Ostrowski, Schaub
10:	Realizing Multiple Autonomous Agents through Scheduling of	Exact Dynamic Programming for Decentralized POMDPs with Lossless Policy Compression,	On Loop Formulas with Variables, <i>Lee, Meng</i>
	Shared Devices, Sardina, De Giacomo	Boularias, Chaib-draa	Answer Set Programming with Functions, <i>Lin, Wang</i>
	From One to Many: Planning for Loosely Coupled Multi-Agent Systems, <i>Brafman, Domshlak</i>	Uncertainty with Stochastic Communication Delays, Spaan, Oliehoek, Vlassis	
		Lunch – from 12:00	

Satisfiability, Knowledge Co	<b>CP + KR – Invited Talk</b> <b>Room: Grand Lodge</b> <i>Adnan Darwiche</i> ompilation and the Journey Towards	Universal Reasoning Engines	9:00 - 10:00
	Coffee 10:00 – 10:30		
KR S2 – Preferences Room: Corinthian Chair: Jim Delgrande Relational Preference Rules for Control, <i>Brafman</i> Reasoning with Qualitative Preferences and Cardinalities using Generalized Circumscription, <i>Doherty, Szalas</i> Dealing with Incomplete Agents' Preferences and an Uncertain Agenda in Group Decision Making via Sequential Majority Voting, <i>Pini, Rossi, Venable,</i> <i>Walsh</i> Preference Modeling by Weighted Goals with Max Aggregation, <i>Uckelman, Endriss</i>	CP S1 – Numerical CSPs Room: Ionic Chair: Michel Rueher A New Framework for Sharp and Efficient Resolution of NCSP with Manifold of Solutions, <i>Goldsztejn, Granvilliers</i> A Branch and Bound Algorithm for Numerical MAX-CSP, <i>Normand, Goldsztejn, Christie,</i> <i>Benhamou</i> Exploiting Common Subexpressions in Numerical CSPs, Araya, Neveu, Trombettoni	CP S2 – Applications 1 Room: Tuscan Chair: Helmut Simonis Protein Structure Prediction with Large Neighborhood Constraint Programming Search, <i>Dotu</i> , <i>Cebrián, Van Hentenryck, Clote</i> Solving a Telecommunications Feature Subscription Configuration Problem, <i>Lesaint, Mehta</i> , <i>O'Sullivan, Quesada, Wilson</i> Constraint Programming Approach for Allocation and Scheduling on the CELL Broadband Engine, <i>Benini, Lombardi, Milano,</i> <i>Ruggiero</i>	10:30 - 12:00
	Lunch – from 12:00		

# Tuesday, September 16, 2008 – Afternoon

13:30 - 14:30	ICAPS – Invited Talk Room: Grand Lodge Jeffrey Rosenschein Computational Voting Theory: Of the Agents, By the Agents, For the Agents	KR S3 – Nonmonotonic Reasoning Room: Doric Chair: Torsten Schaub Default Theory of Defeasible Entailment, <i>Bochman</i> Semantic Preferential Subsumption, <i>Britz,</i> <i>Heidema, Meyer</i>	15:00
14:30 - 15:30	<b>ICAPS Community Meeting</b> ICAPS Awards Presentations of ICAPS-09 and ICAPS-10 <b>Room: Grand Lodge</b>	Computing Default Extensions by Reductions on <i>O<sup>R</sup>, Lian, Waaler</i> An Abstract Argumentation Framework with Varied-Strength Attacks, <i>Martínez, García, Simari</i>	13:30 -
-		Coffee 15:00 – 15:30	─
15:30 - 17:00	ICAPS Poster Session ICAPS System Demonstrations CP Poster Session Room: Banquet Hall	<ul> <li>RK 35 – Nonmonotonic Reasoning and Logic</li> <li>Programming</li> <li>Room: Doric</li> <li>Chair: Fangzhen Lin</li> <li>Embedding Approaches to Combining Rules and</li> <li>Ontologies into Autoepistemic Logic, <i>de Bruijn</i>,</li> <li><i>Eiter, Tompits</i></li> <li>A Principled Framework for Modular Web Rule</li> <li>Bases and Its Semantics, <i>Analyti, Antoniou</i>,</li> <li><i>Damásio</i></li> <li>Notions of Strong Equivalence for Logic Programs</li> <li>with Ordered Disjunction, <i>Faber, Tompits</i>,</li> <li><i>Woltran</i></li> <li>Belief Revision of Logic Programs under Answer</li> <li>Set Semantics, <i>Delgrande, Schaub, Tompits, Woltran</i></li> </ul>	15:30 - 17:00
17:15 - 18:45		KR – Doctoral Consortium Room: Banquet Hall	17:15 - 18:45

# Tuesday, September 16, 2008 – Afternoon

	KR S4 – Temporal and Spatial Reasoning Room: Corinthian Chair: Franz Baader			
13:30 - 15:00	Formalising Temporal Constraints on Part-Whole Relations, <i>Artale, Guarino, Keet</i> Time Representation and Temporal Reasoning from the Perspective of Non-Standard Analysis, <i>Balbiani</i> A Complete First-Order Logic of Knowledge and Time, <i>Belardinelli, Lomuscio</i> Automated Complexity Proofs for Qualitative Spatial and Temporal Calculi, <i>Renz, Li</i>	<b>CP S3 – QCSP</b> <b>Room: Ionic</b> <b>Chair: Christian Schulte</b> Guiding Search in QCSP <sup>+</sup> with Back-Propagation, <i>Verger</i> , <i>Bessière</i> Quantified Constraint Optimization, <i>Benedetti</i> , <i>Lallouet, Vautard</i>	CP S4 – Verification Room: Tuscan Chair: Peter Stuckey A Constraint-Programming Framework for Bounded Program Verification, <i>Collavizza, Rueher, Van</i> <i>Hentenryck</i> A Coinduction Rule for Entailment of Recursively Defined Properties, <i>Jaffar,</i> <i>Santosa, Voicu</i>	14:00 - 15:00
		Coffee 15:00 – 15:30		
15:30 - 17:00	KR S6 – Causality and Learning Room: Corinthian Chair: Hector Levesque Scenario Update Applied to Causal Reasoning, <i>de Saint-Cyr</i> Defaults and Normality in Causal Structures, <i>Halpern</i> On Notions of Causality and Distributed Knowledge, <i>van der</i> <i>Meyden</i> A First Experimental Demonstration of Massive Knowledge Infusion, <i>Michael,</i> <i>Valiant</i>	CP Poster Session ICAPS Poster Session ICAPS System Demonstrations Room: Banquet Hall		15:30 - 17:00
17:00 - 18:45		CPAIOR 2009 and CP 200 ACP Gener Room	9 Presentations (15 minutes) ral Assembly 1: Ionic	17:00 - 18:45

# Wednesday, September 17, 2008 – Morning

9:00 - 10:00	CP + ICAPS – Room: Gra John H How to	- Invited Talk and Lodge <i>looker</i> Relax	KRAMAS – (Dynamic) Epistemic Logic Room: Doric What Do We Accept After an Announcement?, <i>Herzig, Lima,</i> <i>Lorini</i> Reasoning about Other Agents' Beliefs under Bounded Resources, <i>Alechina, Logan, Nguyen, Rakib</i> Simulation and Information: Quantifying over Epistemic Events, <i>van Ditmarsch, French</i>	8:45 - 10:00
		Coffee 10:00 – 10:30	-	
10:30-12:00 10:30-12:00 11 11 10:30-12:00	ICAPS S5 – Temporal Reasoning Room: Grand Lodge Chair: Neil Yorke-Smith P3C: A New Algorithm for the Simple Temporal Problem, <i>Planken, de Weerdt, van der</i> <i>Krogt</i> Linear Relaxation Techniques for Task Management in Uncertain Settings, <i>Varakantham, Smith</i> Fast Dynamic Scheduling of Disjunctive Temporal Constraint Networks through Incremental Compilation, <i>Shah, Williams</i> CircuitTSAT: A Solver for Large Instances of the Disjunctive Temporal Problem, <i>Nelson, Kumar</i>	ICAPS S6 – Planning Heuristics Room: Lodge 2 Chair: Patrik Haslum Additive-Disjunctive Heuristics for Optimal Planning, <i>Coles,</i> <i>Fox, Long, Smith</i> Optimal Additive Composition of Abstraction-based Admissible Heuristics, <i>Katz,</i> <i>Domshlak</i> Unifying the Causal Graph and Additive Heuristics, <i>Helmert,</i> <i>Geffner</i> A Hybrid Relaxed Planning Graph-LP Heuristic for Numeric Planning Domains, <i>Coles, Fox, Long, Smith</i>	KRAMAS – Communication, Coalitions and Games Room: Doric Dynamic Logic on Normal Form Games, <i>Ramanujam, Simon</i> Modal Logics for Preferences and Cooperation: Expressivity and Complexity, <i>Degremont, Kurzen</i> Information-Based Argumentation, <i>Sierra, Debenham</i> From Trust in Information Sources to Trust in Communication Systems: an Analysis in Modal Logic, <i>Lorini, Demolombe</i> Pre-processing Techniques For Anytime Coalition Structure, <i>Michalak, Dowell, McBurney,</i> <i>Wooldridge</i>	10:30 - 12:35

# Wednesday, September 17, 2008 - Morning

8:30 - 10:00	KROW Room: Corinthian Invited Talk Enrico Franconi Ontologies and Databases Towards Distributed Tableaux Reasoning Procedure for DDL with Increased Subsumption Propagation between Remote Ontologies, Homola, Serafini	<b>CP + ICAPS –</b> <b>Room: Gra</b> <i>John H</i> How to	<b>Invited Talk</b> and Lodge <i>Tooker</i> Relax	9:00 - 10:00
		Coffee 10:00 – 10:30		
10:30 - 12:00	KROW Room: Corinthian Supporting Coral Reef Ecosystems Research through Modelling Re- usable Ontologies, <i>Myers</i> , <i>Atkinson, Johnstone</i> Enhancing Subjective Ontologies with Social Tagging Systems, <i>Hooijmaijers, Stumptner</i> Creating and Querying Linguistically Motivated Ontologies, <i>Schwitter</i>	CP S5 – Advanced Propagation Room: Ionic Chair: Nicolas Beldiceanu Approximate Compilation of Constraints into Multivalued Decision Diagrams, <i>Hadzic,</i> <i>Hooker, O'Sullivan, Tiedemann</i> Cost-based Domain Filtering for Stochastic Constraint Programming, <i>Rossi, Tarim, Hnich, Prestwich</i> Connecting ABT with Arc Consistency, <i>Brito, Meseguer</i>	CP S6 – Applications 2 Room: Tuscan Chair: Jimmy Lee Planning and Scheduling the Operation of a Very Large Oil Pipeline Network, <i>Moura, de</i> <i>Souza, Ciré, Lopes</i> An Application of Constraint Programming to Superblock Instruction Scheduling, <i>Malik,</i> <i>Chase, Russell, van Beek</i> Search Strategies for Rectangle Packing, <i>Simonis, O'Sullivan</i>	10:30 – 12:00
		Lunch – from 12:00		

# Wednesday, September 17, 2008 – Afternoon

13:30 - 15:00	ICAPS S7 – Constraint Programming and Scheduling Room: Grand Lodge Chair: Chris Beck Filtering for a Continuous Multi- Resources cumulative Constraint with Resource Consumption and Production, <i>Poder, Beldiceanu</i> Using Constraint Networks on Timelines to Model and Solve Planning and Scheduling Problems, <i>Pralet, Verfaillie</i>	ICAPS S8 – Machine Learni for Planning Room: Lodge 2 Chair: TBA Learning Heuristic Functions through Approximate Linear Programming, <i>Petrik, Zilberste</i> Learning Relational Decision Trees for Guiding Heuristic Planning, <i>de la Rosa, Jiménez,</i> <i>Borrajo</i> An Online Learning Method for	ng ein or	ICAPS S9 – Tractable Plann Room: Tuscan Chair: Carmel Domslak Causal Graphs and Structurally Restricted Planning, <i>Chen</i> , <i>Giménez</i> In Search of the Tractability Boundary of Planning Problem <i>Giménez, Jonsson</i> A New Approach to Tractable Planning, <i>Haslum</i>	ing y
	A New Hybrid Genetic Algorithm for the Job Shop Scheduling Problem with Setup Times, <i>González, Vela, Varela</i> A New Local Search for the Job Shop Problem with Uncertain Durations, <i>González-Rodríguez,</i> <i>Vela, Puente, Varela</i>	Improving Over-Subscription Planning, Yoon, Benton, Kambhampati What Makes Planners Predictable?, Roberts, Howe, Wilson, desJardins		ICAPS Dissertation Award Talk Matt Streeter Using Online Algorithms to Solve NP-Hard Problems More Efficiently in Practice	14:37 - 15:00
	Coffee 15:00 – 15:20				
15:30 - 17:00	ICAPS Fes Room: Grand	- 15:30 tivus 1 Lodge	KRA Room Norrr and C Meye Cogr Ager Rele Envi An A for C Alam Requ medi Lope	AMAS – Coordination m: Doric native Multi-Agent Programs Their Logics, <i>Dastani, Grossi,</i> <i>er, Tinnemeier</i> nitive Artifacts for Intelligent nts in MAS: Exploiting vant Information Residing in ronments, <i>Piunti, Ricci</i> Argumentation-based Protocol Conflict Resolution, <i>Bentahar,</i> <i>a, Maamar</i> nirements Towards automated fation agents, <i>Simoff, Sierra,</i> <i>ez de Mantaras</i>	15.20 - 17.00
	Banqu Boardir	et – Harbour Cruise on MV Syd ng at Jetty 1 of King Street Wha	dney 2 rf, at	2000 17:45	

<b>KR – Invited Ta</b> <b>Room: Doric</b> <i>Joe Halpern</i> Beyond Nash Equilit Solution Concepts for the 2	<b>lk</b> prium: 21 <sup>st</sup> Century	Back to the	<b>CP – Invited Talk Room: Ionic</b> <i>Alain Colmerauer</i> Complexity of Universal Programs	14:00 - 15:00
Coffee 15:0		0 - 15:30		
KROW Room: Corinthian Heterogeneously Structured Ontologies - Integration, Connection, and Refinement, <i>Kutz, Luecke, Mossakowski</i> Ontology Evolution for Customer Services, <i>Quan, Nguyen</i> An Argumentative Approach to Reasoning with Inconsistent Ontologies, <i>Gomez, Chesñevar,</i> <i>Simari</i> Utilising Ontological Structure for Reasoning with Preferences, <i>Chamiel, Pagnucco</i> Closing	CP S7 – Table Constraints Room: Ionic Chair: Christian BessièreCP S8 – Tractability Room: Tuscan Chair: Francesca RossiReformulating Positive Table Constraints using Functional Dependencies, Cambazard, O'SullivanClasses of Submodular Constraints Expressible by Graph Cuts, Zivný, JeavonsOptimization of Simple Tabular Reduction for Table Constraints, LecoutreStructural Tractability of Propagated Constraints, Green, JeffersonMaintaining Generalized Arc Consistency on Ad Hoc r-ary Constraints, Cheng, YapA Framework for Hybrid Tractability Results in Boolean Weighted Constraint Satisfaction Problems, Satish Kumar		15:30 - 17:00	
Bang Board	uet – Harbour Cruise ing at Jetty 1 of King	on MV Sydne Street Wharf,	y 2000 at 17:45	

9-00 - 10-00		ICAPS + KR – Invited Talk Room: Grand Lodge Ronen Brafman Preferences, Planning, and Contro	1
		Coffee 10:00 – 10:30	
	ICAPS S11 – Applications II Room: Corinthian Chair: David E. Smith	ICAPS S10; KR S7 – KR Papers Room: Grand Lodge Chair: Gerhard Lakemeyer	KR S8 – Description Logics/Ontologies I Room: Doric Chair: Frank Wolter
10.30 - 13.00	<ul> <li>HiPPo: Hierarchical POMDPs for Planning Information Processing and Sensing Actions on a Robot, <i>Sridharan, Wyatt,</i> <i>Dearden</i></li> <li>Planning 3D Task Demonstrations of a Teleoperated Space Robot Arm, <i>Kabanza, Belghith, Bellefeuille,</i> <i>Auder, Hartman</i></li> <li>Generative Planning for Hybrid Systems Based on Flow Tubes, <i>Li, Williams</i></li> <li>Multi-Objective Evolutionary Algorithms for Scheduling the James Webb Space Telescope, <i>Giuliano, Johnston</i></li> </ul>	On the Complexity of Planning Operator Subsumption, <i>Eyerich,</i> <i>Brenner, Nebel</i> Deductive Planning with Inductive Loops, <i>Magnusson, Doherty</i> Planning Graphs and Propositional Clause-Learning, <i>Rintanen</i> Proving Goal Achievability, <i>Lin</i>	<ul> <li>LTL over Description Logic Axioms, Baader, Ghilardi, Lutz</li> <li>View-Based Query Answering over Description Logic Ontologies, Calvanese, De Giacomo, Lenzerini, Rosati</li> <li>Unions of Conjunctive Queries in SHOQ, Glimm, Horrocks, Sattler</li> <li>Representing Structured Objects using Description Graphs, Motik, Cuenca Grau, Horrocks, Sattler</li> </ul>
		Lunch – from 12:00	

## Thursday, September 18, 2008 – Morning

# Thursday, September 18, 2008 - Morning

ACP – Best Thesis Award Talk Room: Ionic Claude-Guy Quimper Efficient Propagators for Global Constraints	CP S9 – Optimization Room: Tuscan Chair: Roland Yap Dichotomic Search Protocols for Constrained Optimization, <i>Sellmann, Kadioglu</i> Exploiting Decomposition in Constraint Optimization Problems, <i>Kitching, Bacchus</i>	9:00 - 10:00		
Coffee 10:0	00 - 10:30			
CP S10 – Soft, Fuzzy and Weighted CSP Room: Ionic Chair: Javier Larrosa A Soft Constraint of Equality: Complexity and Approximability, <i>Hebrard</i> , O'Sullivan, Razgon Relaxations for Compiled Over-Constrained Problems, <i>Papadopoulos</i> , O'Sullivan Elicitation Strategies for Fuzzy Constraint Problems with Missing Preferences: Algorithms and Experimental Studies, <i>Gelain</i> , <i>Pini</i> , <i>Rossi</i> , <i>Venable</i> , <i>Walsh</i>	CP S11 – Global Constraints Room: Tuscan Chair: Pedro Barahona Flow-Based Propagators for the SEQUENCE and Related Global Constraints, <i>Maher, Narodytska,</i> <i>Quimper, Walsh</i> Length-Lex Bounds Consistency for Knapsack Constraints, <i>Malitsky, Sellmann, van Hoeve</i> A Geometric Constraint over k-Dimensional Objects and Shapes Subject to Business Rules, <i>Carlsson, Beldiceanu, Martin</i>	10:30 - 12:00		
Lunch – from 12:00				

# Thursday, September 18, 2008 – Afternoon

	ICAPS S13 – Beyond A*: Graph Search for Planning Room: Corinthian Chair: Rong Zhou	ICAPS S12; KR S9 – ICAPS Papers Room: Grand Lodge Chair: TBA	KR S10 – Description Logics/Ontologies II Room: Doric Chair: Ian Horrocks
13:30 - 15:00	<ul> <li>Faster than Weighted A*: An Optimistic Approach to Bounded Suboptimal Search, <i>Thayer, Ruml</i></li> <li>Fast Planning for Dynamic Preferences, <i>Ziebart, Dey, Bagnell</i></li> <li>Angelic Hierarchical Planning: Optimal and Online Algorithms, <i>Marthi, Russell, Wolfe</i></li> </ul>	A Temporal Logic-Based Planning and Execution Monitoring System, <i>Kvarnström</i> , <i>Heintz, Doherty</i> The Complexity of Optimal Planning and a More Efficient Method for Finding Solutions, <i>Ray, Ginsberg</i> A Compact and Efficient SAT Encoding for Planning, <i>Robinson</i> , <i>Gretton, Pham, Sattar</i>	Identifying Objects Over Time with Description Logics, <i>Toman, Weddell</i> Path-Based Identification Constraints in Description Logics, <i>Calvanese, De</i> <i>Giacomo, Lembo, Lenzerini, Rosati</i> <i>RIQ</i> and <i>SROIQ</i> Are Harder than <i>SHOIQ, Kazakov</i> How Many Toes Do I Have? Parthood and Number Restrictions in Description Logics, <i>Schröder,</i> <i>Pattingon</i>
	Fast and Memory-Efficient Multi-Agent Pathfinding, <i>Wang, Botea</i>	Stochastic Planning with First Order Decision Diagrams, <i>Joshi,</i> <i>Khardon</i>	Pattinson
		Coffee 15:00 – 15:30	
	ICAPS S15 – Search, Planning and Plan Recognition Room: Corinthian Chair: Wheeler Ruml	ICAPS S14; KR S11 – KR Papers Room: Grand Lodge Chair: Michael Thielscher	KR S12 – Description Logics/Ontologies III Room: Doric Chair: Enrico Franconi
7:00	A New Probabilistic Plan Recognition Algorithm Based on String Rewriting, <i>Geib</i> , <i>Maraist, Goldman</i>	A Logic for Non-Terminating Golog Programs, <i>Classen,</i> <i>Lakemeyer</i> ConGolog, Sin Trans: Compiling	Can You Tell the Difference Between DL-Lite Ontologies?, <i>Kontchakov</i> , <i>Wolter, Zakharyaschev</i> Complexity of Abduction in the <i>EL</i>
15:30 - 1'	Useless Actions Are Useful, Wehrle, Kupferschmid, Podelski	ConGolog into Basic Actions Theories for Planning and Beyond, <i>Fritz, Baier, McIlraith</i>	Family of Lightweight Description Logics, <i>Bienvenu</i> Model-Theoretic Characterization of
	Structural Patterns Heuristics via Fork Decomposition, <i>Katz</i> , <i>Domshlak</i>	On the Relative Expressiveness of ADL and Golog: The Last Piece in the Puzzle, <i>Röger, Helmert, Nebel</i>	Asher and Vieu's Ontology of Mereotopology, <i>Hahmann, Gruninger</i> Ontology Generation through the
			Fusion of Partial Reuse and Relation

## Thursday, September 18, 2008 - Afternoon

A	CP Excellence in Constraint Programming, includ Application Paper, Best Student Room: Ion Chair: Barry O'i	ing awarding for Best Research Paper, Best Paper, and Best Thesis ic Sullivan	14:00 - 15:00
	Coffee 15:00 –	15:30	
7:00	CP S12 – SAT Room: Ionic Chair: Thomas Schiex Switching Among Non-weighting, Clause Weighting, and Variable Weighting in Local Search for SAT, <i>Wei, Li, Zhang</i> From High Girth Graphs to Hard Instances, <i>Ansótegui, Béjar, Fernàndez, Mateu</i>	CP Solver Competition Results Room: Tuscan	15:30 - 16:00
15:30 - 1	Universal Booleanization of Constraint Models, <i>Huang</i>		

# Friday, September 19, 2008

	KR S13 – Agents; Room: Doric Chair: Ron van der Meyden	KR S14 – Inconsistency; Room: Corinthian Chair: Richard Booth	
	Reasoning about Agent Deliberation, <i>Alechina</i> ,	How to Choose Weightings to Avoid Collisions in a	
	Dasiani, Logan, Meyer	Restricted Penalty Logic, Chercuit-speranato, Lagrue	
10:40	A Logical Framework to Represent and Reason about Graded Preferences and Intentions, <i>Casali, Godo,</i> <i>Sierra</i>	Conflict-Based Merging Operators, <i>Everaere, Konieczny,</i> Marquis	
8:45 -	A Logical Account of Institutions: From Acceptances to Norms via Legislators, <i>Lorini, Longin</i>	Measuring Inconsistency through Minimal Inconsistent Sets, Hunter, Konieczny	
	Promises Kept, Promises Broken: An Axiomatic and Quantitative Treatment of Fulfillment, <i>Simari,</i> <i>Broecheler, Subrahmanian, Kraus</i>	Inconsistency Management Policies, Martinez, Parisi, Pugliese, Simari, Subrahmanian	
	Dynamic Logic on Games with Structured Strategies, Ramanujam, Simon	A Lexicographic Inference for Partially Preordered Belief Bases, Yahi, Benferhat, Lagrue, Sérayet, Papini	
	Coffee	10:40 – 11:10	
	KR Challenges; Chair:	Patrik Doherty; Room: Doric rited Talks	
10	Erik	Sandewall,	
- 12:	Obtaining Well-Represen	ted Knowledge from the WWW:	
10 -	the Need for	Information Analysis	
11:	Frank van Harmelen		
	Knowledge Representation in the age of the Web:		
-	Why KR will never be the same again.		
	KR S15 – Reasoning about Action; Room: Doric	KR S16 – Argumentation; Room: Corinthian	
	Chair: Morri Pagnucco	Chair: Tony Hunter	
5:00	Complex Epistemic Modalities in the Situation Calcult <i>Kelly, Pearce</i>	us, Peer-to-Peer Query Answering with Inconsistent Knowledge, <i>Binas, McIlraith</i>	
3:30 - 1	Cartesian Situations and Knowledge Decomposition in Situation Calculus, <i>Petrick</i>	the Making Decisions through Preference-Based Argumentation, <i>Amgoud, Dimopoulos, Moraitis</i>	
1	Action Theory Contraction and Minimal Change, Varz	inczak Revision of an Argumentation System, Cayrol, de Saint-Cyr, Lagasquie-Schiex	
	First-Order Strong Progression for Local-Effect Basic Theories, Vassos, Lakemeyer, Levesque	Action	
-	Coffee 15:00 – 15:30		
	Room: Doric; Chair: Grigoris Antoniou	Room: Corinthian Chair: Salem Benferhat	
0	Injecting the How into the What: Investigating a Finite Classical Logic, <i>Hinrichs, Genesereth</i>	e Equilibria in Social Belief Removal, <i>Booth, Meyer</i>	
:3 - 17:0	Taming the Infinite Chase: Query Answering under Expressive Relational Constraints, <i>Cali, Gottlob, Kifer</i>	Horn Clause Belief Change: Contraction Functions, Delgrande	
15	Accuracy and Efficiency of Fixpoint Methods for Approximate Query Answering in Locally Complete Databases Cortés-Calabuig Denecker, Arieli Bruyno	Linking Iterated Belief Change Operations to Nonmonotonic Reasoning, <i>Kern-Isberner</i>	
	paraousos, corres curaouis, percener, Arren, Druyno		
	Approximate Descening in First Order Lesis Theories	Improvement Operators, <i>Konieczny, Pino Perez</i>	

## CP & ICAPS Poster Session

#### Tuesday, September 16, 15:30-17:00; Room: Banquet Hall

ICAPS Posters						
Gradient-Descent Policy Search for Job-Shop Scheduling Problems, Gabel, Riedmiller	Strong Probabilistic Planning, do Lago Pereira, Barros, Gagliardi Cozman					
Collaborative Resource Constraint Scheduling with a Fractional Shared Resource, <i>Singh, Weiskircher</i>	The ANML Language, <i>Smith, Cushing</i> Reasoning about Executional Uncertainty to					
Planning and Monitoring Solar Array Operations on th ISS, <i>Reddy, Iatauro, Kurklu, Boyce, Frank, Jonsson</i>	e Strengthen Schedules, <i>Hiatt, Zimmerman, Smith, Simmons</i>					
Computing Exploration Policies via Closed-form Leas Squares Value Iteration, <i>Bush, Williams, Roy</i>	t- Real-time Bayesian Search Control for MDPs, Sanner, Goetschalckx, Driessens					
Lookahead, Propagation and Moves in Real-Time Heuristic Search, <i>Hernandez</i> , <i>Meseguer</i>	Learning Macros That are not Captured by Given Example Plans, <i>Newton, Levine, Fox, Long</i>					
Action Planning for Automated Program Verification, Edelkamp, Kellershoff	Planning Competition Posters					
On-the-fly Macros, Chen, Gimenez	Deterministic Track, Refanidis, Helmert, Do					
Planning in the Face of Frequent Exogenous Events, <i>Fritz, McIlraith</i>	Learning Track, Fern, Khardon, Tadepalli					
Scheduling Time-Constrained Instructions by the Predecessor-Successor-Tree Bound Consistency, <i>Wu</i> , <i>Zhang, Xue</i>	Probabilistic Track, Bryce, Buffet					
ICAPS Doctoral	Consortium Posters					
On Planning with Preferences in HTN*, <i>Sohrabi,</i> <i>McIlraith</i>	Stochastic Planning with First Order Decision Diagrams, Joshi, Khardon					
Planning As CSP: A Transition Based Encoding, <i>Banerjee, Haslum</i>	Pushing the Envelope of Abstraction-based Admissible Heuristics, <i>Katz, Domshlak</i>					
A Heuristic for Soft Deadline Goals, <i>Benton, Talamadupula, Kambhampati</i>	On-line Planning and Scheduling for Diagnosing High- speed Manufacturing, <i>Kuhn, de Kleer</i>					

Constraint-based Temporal Planning: Issues in Search Control and Domain Modelling, *Bernardini*, *Smith* 

Exact Dynamic Programming for Decentralized POMDPs with Lossless Policy Compression, *Boularias, Chaib-draa* 

Acting Well in Continuous-State Stochastic Worlds with State-Dependent Dynamics, *Brunskill, Roy* 

Computing Exploration Policies via Closed-form<br/>Least-Squares Value Iteration, Bush, Williams, RoyRobinson, Gretton, Pham, SattarOn the Relative Expressiveness of ADL and Golog: The<br/>Last Piece in the Puzzle, Röger, Helmert, Nebel

Planning in the Face of Frequent Exogenous Events, *Fritz, McIlraith* 

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Generative Planning for Hybrid Systems based on Flow

Solving Adversarial Planning Problems using

P3C: A New Algorithm for the Simple Temporal Problem, *Planken, van der Krogt, de Weerdt* 

A Compact and Efficient SAT Encoding for Planning,

Fast Dynamic Scheduling of Disjunctive Temporal

Constraint Networks, Shah, Williams

Bidirectional Search, Mattmüller, Nebel

Tubes, Li, Williams

Factored Markov Decision Processes with Imprecise Probabilities: A Multilinear Solution, <i>Valdivia</i> <i>Delgado, Nunes de Barros, Gagliardi Cozman</i> Solving Satisfiability Problems with Preferences in Planning as Satifiability, <i>Di Rosa, Giunchiglia,</i> <i>Maratea</i>	<ul><li>Fast and Memory-Efficient Multi-Agent Pathfinding, Wang, Botea</li><li>Fast Planning for Dynamic Preferences, Ziebart, Dey, Bagnell</li></ul>				
ICAPS System Demonstrations					
Emma: An Event Management Assistant, Berry,	The Bear Project: A Cognitive Approach to Robotics,				
Donneau-Golencer, Duong, Gervasio, Peintner,	Anshar, Johnston, Novianto, Stanton, Williams				
Yorke-Smith (AI Center, SRI International, USA)	(Innovation and Technology Research Laboratory,				
	University of Technology, Sydney, Australia)				
An Interactive Environment for Plan Visualization					
and Generation: InLPG, Gerevini, Saetti	CP-based Social Scheduling, Feldman, Freuder, Ioffe,				
(Universita degli Studi di Brescia, Italy)	Little, Manzano (Cork Constraint Computation Centre,				
	University College Cork, Ireland)				

CP Posters						
Perfect Constraints are Tractable, <i>Salamon, Jeavons</i> Efficiently Solving Problems where the Solutions Form a Group, <i>Petrie, Jefferson</i>	Stochastic Local Search for the Optimal Winner Determination Problem in Combinatorial Auctions, <i>Boughaci, Benhamou, Drias</i>					
Approximate Solution Sampling (and Counting) on AND/OR Spaces, <i>Gogate, Dechter</i>	Revisiting the Upper Bounding Process in a Safe Branch and Bound Algorithm, <i>Goldsztejn, Lebbah,</i> <i>Michel, Rueher</i>					
Model Restarts for Structural Symmetry Breaking, Heller, Panda, Sellmann, Yip	Computing all Optimal Solutions in Satisfibility Problems with Preferences, <i>Di Rosa, Giunchiglia,</i> <i>Maratea</i>					
Efficient Algorithms for Functional Constraints, Zhang, Yap, Li, Marisetti	On the Efficiency of Impact Based Heuristics, Correia, Barahona					
Crossword Puzzles as a Constraint Problem, Anbulagan, Botea	Probabilistically Estimating Backbones and Variable Bias: Experimental Overview, <i>Hsu, Muise, Beck,</i>					
Recent Hybrid Techniques for the Multi-knapsack Problem, <i>Diego Rodrigues, Michelon, Campêlo</i>	McIlraith					
Edge Matching Puzzles as Hard SAT/CSP Benchmarks, Ansótegui, Béjar, Fernàndez, Mateu	A New Empirical Study of Weak Backdoors, Gregory, Fox, Long					
Test Strategy Generation using Quantified CSPs, Sachenbacher, Maier	Adding Search to Zinc, <i>Rafeh, Marriott, Garcia de la Banda, Nethercote, Wallace</i>					
Perfect Derived Propagators, Schulte, Tack	Experimenting with Small Changes in Conflict-Driven Clause Learning Algorithms, <i>Simon, Audemard</i>					
Refined Bounds for Instance-Based Search Complexity of Counting and Other #P Problems, <i>Otten, Dechter</i>	Search Space Reduction for Constraint Optimization Problems, <i>Cheng, Yap</i>					
Transforming Inconsistent Subformulas in MaxSAT Lower Bound Computation, <i>Li, Manyà,</i> <i>Mohamedou, Planes</i>	Engineering Stochastic Strategies for the Low Autocorrelation Binary Sequence Problem, <i>Halim, Yap,</i> <i>Halim</i>					
Semi-automatic Generation of CHR Solvers for Global Constraints, <i>Raiser</i>						

CP Doctoral Program Posters						
Automatically Detecting Neighbourhood Constraint	Learning Arbitrary Constraints at Conflicts, Moore					
	ASODPOP: Making Open DPOP Asynchronous, Ottens					
Probabilistic Continuous CSPs, Carvalho	Time To Learn Or Time To Forget? Strengths and					
Cache Conscience Data Structures for Boolean Satisfiability Solvers, <i>Chu</i>	Weaknesses of a Self-Adaptive Approach To Reasoning in Quantified Boolean Formulas, <i>Pulina</i>					
Confluence of Reduction Rules for Lexicographic Ordering Constraints, <i>Grayland</i>	Constraint Model Enhancement by Automated Common Subexpression Elimination, <i>Rendl</i>					
Towards a Better Estimation of CDCL Runtime, <i>Haim</i>	Load-Balancing Methods for Parallel Constraint Solving, <i>Rolf</i>					
Probabilistic Inference for Heuristic Search, Hsu	Incremental Satisfiability and Implication for UTVPI Constraints, <i>Schutt</i>					
Exploiting Symmetries for Analyzing Infeasible	Colline Weight Constrained Chartery Dath Deckhart					
Constraint Systems, Lijjiion	with Replenishment Arcs, <i>Smith</i>					
A Hybrid Optimisation Method for Managing Uncertainty in Capacity Expansion Planning, <i>Moayer</i>	Realtime Online Solving of Quantified CSPs, Stynes					

## KR Doctoral Consortium Posters Tuesday, September 16, 17:15-18:45; Room: Banquet Hall

Towards Efficient Planning with Rich Goals and Preferences, <i>Baier</i>	Inconsistency Management in Databases, <i>Martinez,</i> Subrahmanian
Consequence Finding for Description Logics, <i>Bienvenu</i>	Reasoning Services for Ontology Lifecycle Support, Pammer
A Declarative NP Problem Solving System, Brain	Efficient Representation and Effective Reasoning for Multi-Agent Systems, <i>Pham</i>
Generation and Execution Monitoring of Optimal	
Plans in Highly-Dynamic Environments, Fritz	Belief Revision in Description Logics, <i>Ribeiro</i> , <i>Wassermann</i>
Advanced Techniques for Answer Set	
Programming, Gebser	Decision Procedures for Products of Agent Logics and Description Logics, <i>Sevlan</i>
Studying Subsumption Propagation in Systems of	1 0 7 7
Distributed Ontologies, Homola	Building Models of Agent Behavior to Predict Future Actions, Simari, Subrahmanian
Complete and Confluent Rewriting of Formulae in	
Only-knowing Logic, Lian	Preference-Based Planning with Procedural Control Knowledge, Sohrabi, Araghi
Thesis Summary: A Theorem Proving Agent	
Architecture, Magnusson, Doherty	

## Program at a Glance

Saturday, September 13, 2008						
Room →	Doric	Corinthian				
10:30 - 12:00	NMR-A1	NMR-B1				
13:30 - 15:00	NMR-A2 NMR-B2					
15.30 – 16.30 Doric: NMR Invited Bochman						

Registration: Main Foyer Sunday to Friday, 8:30 – 17:00 W = workshop T = tutorial DC = doctoral consortium S = technical session

Sunday, September 14, 2008 AR2 = Ante Room 2										
Room →	Grand Lodge	Doric	Corinthian	Ionic	Tuscan	Lodge 2	Lodge 3	Lodge 4	Carrington	AR2
Early Morning	ICAPS-CP DC			ICAPS-CP W1	ICAPS W2	ICAPS W4	ICAPS W6	CP W2	CP W8	CP W9
Late Morning	ICAPS-CP DC	NMR-E1	NMR-F1	ICAPS-CP W1	ICAPS W2	ICAPS W4	ICAPS W6	CP W2	CP W8	CP W9
Early Afternoon	ICAPS DC	NMR-C1	NMR-D1	ICAPS-CP W1	ICAPS W2	ICAPS W4	ICAPS W6	CP W2		CP DC
Late Afternoon	ICAPS DC	Doric: NM	R Invited Lin	ICAPS-CP W1	ICAPS W2	ICAPS W4	ICAPS W6	CP W2		CP DC
18:00 – 21:00 CP-ICAPS DC Dinner – Australian Hotel, 100 Cumberland Street, The Rocks, Sydney 2000										

Monday, Septen	Anday, September 15, 2008 AR2 = Ante Room 2										
Room →	Gr. Lodge	Doric	Corinth.	Ionic	Tuscan	Lodge 2	Lodge 3	Lodge 4	Carrington	AR2	Carruthers
Early Morning	ICAPS T1			ICAPS T3		ICAPS W3	ICAPS W5	CP W6	CP W3/W4	CP W7	CP DC
Late Morning	ICAPS T1	NMR-C2	NMR-A3	ICAPS T3	CP T2	ICAPS W3	ICAPS W5	CP W6	CP W3/W4	CP W7	CP DC
Early Afternoon	ICAPS T2	KR T1		ICAPS T4		ICAPS W3	ICAPS W5	CP W6	CP W3/W4	CP W7	CP DC
Late Afternoon	ICAPS T2	KR T2		ICAPS T4		ICAPS W3	ICAPS W5	CP T1	CP W3/W4		CP DC
Early Evening	Doric room: KR Opening, Norman Foo Ionic room, 17:10 – 18:25: ICAPS Competition										
18:30	Banquet Hall: CP-ICAPS-KR Opening Reception										

Tuesday, September 16, 2008							
Room →	Grand Lodge	Doric	Corinthian	Ionic	Tuscan	Lodge 2	Banquet Hall
Early Morning	CP-KR Invited Darwiche			ICAPS S1		ICAPS S2	
Late Morning	ICAPS S3	KR S1	KR S2	CP S1	CP S2	ICAPS S4	
Early Afternoon	ICAPS Invited Rosenschein ICAPS Community Meeting	KR S3	KR S4	CP S3	CP S4		
Late Afternoon		KR S5	KR S6				ICAPS-CP Posters
Early Evening				CP-09; ACP			KR DC

Wednesday, September 17, 2008								
Room →	Grand Lodge	Doric	Corinthian	Ionic	Tuscan	Lodge 2		
Early Morning	<b>CP/ICAPS</b> Invited Hooker	KRAMAS	KROW					
Late Morning	ICAPS S5	KRAMAS	KROW	CP S5	CP S6	ICAPS S6		
Early Afternoon	ICAPS S7	KR Invited		CP Invited	ICAPS S9;	ICAPS S8		
		Halpern		Colmerauer	ICAPS Dissertation Award Talk			
Late Afternoon	ICAPS Festivus	KRAMAS	KROW	CP S7	CP S8			
17:45 - 20:45	CP-ICAPS-KR Banquet (Harbour Cruise) – Departure Point: Jetty 1 of King St Wharf							

Thursday, September 18, 2008							
Room →	Grand Lodge	Doric	Corinthian	Ionic	Tuscan		
Early Morning	ICAPS-KR Invited Brafman			CP Best Thesis Talk	CP S9		
Late Morning	ICAPS S10; KR S7	KR S8	ICAPS S11	CP S10	CP S11		
Early Afternoon	ICAPS S12; KR S9	KR S10	ICAPS S13	CP ACP Awards			
Late Afternoon	ICAPS S14; KR S11	KR S12	ICAPS S15	CP S12	<b>CP</b> Solver Competition		

Friday, September 19, 2008							
Room →	Doric	Corinthian					
8:45 - 10:40	KR S13	KR S14					
11:10-12:10	KR Challenges						
13:30 - 15:00	KR S15	ICAPS S16					
15:30 - 17:00	KR S17	ICAPS S18					

The actual time and duration of a time interval (e.g., early morning, late afternoon...) can differ from one event to another or from one day to another. For exact time information, check the details of a specific event in this booklet.

Here is a typical *example*: 8:30 - 10:00 early morning session; 10:30 - 12:00 late morning; 13:30 - 15:00 early afternoon; 15:30 - 17:00 late afternoon.