

ICAPS 2005

Journal
for
AI

Workshop and Tutorial Schedule

Events start at 8:30 AM and finish by 5:30 PM.

Room / Day	Monday, June 6 2005	Tuesday, June 7 2005
<i>Windjammer 1-2 1st Floor</i>	T1 - Temporal and Resource Reasoning for Planning, Scheduling, and Execution	T2 - Hard and Soft Temporal Constraints Techniques for Scheduling Problems with Preferences and Uncertainty (8:30 AM – 12:30 PM)
<i>Windjammer 3-4 1st Floor</i>	WS4 - Multiagent Planning and Scheduling	WS3 - Mixed-Initiative Planning and Scheduling
<i>Spyglass 1 1st Floor</i>	WS1 - Constraint Programming for Planning and Scheduling	T3 - Directed Model Checking
<i>Spyglass 2 1st Floor</i>	T4 - Domain Modelling for Planning (8:30 AM – 12:30 PM)	WS6 - Planning Under Uncertainty for Autonomous Systems
<i>Cypress 1 1st Floor</i>	WS5 - Verification and Validation	
<i>Big Sur 3 1st Floor</i>	WS7 - Plan Execution: A Reality Check	WS2 - Role of Ontologies in Planning and Scheduling (8:30AM–12:30PM) K.E. Competition (1:50 PM–6 PM)
<i>Pacific-Grove Hyatt Monterey Resort</i>	Lunch (12:30 PM – 2:00 PM)	
<i>Mark Thomas Foyer 1st Floor</i>	Coffee Break (10:30 AM – 11:00 AM and 3:30 AM – 4:00 PM)	

Social Events on Monday and Tuesday

Monday night Shuttle services between the Monterey Hyatt and Carmel-by-the-Sea

Tuesday night Beach Party, offsite

Technical Program

Wednesday, June 8th

8:15	Opening Remarks	
8:30 - 9:30	Invited Talk ▪ Expressivity <i>Drew McDermott, Yale University, USA</i>	<i>Session-Chair: Kanna Rajan</i>
9:30 - 10:30	Applications of P&S I ▪ Automated Composition of Web Services by Planning in Asynchronous Domains <i>Marco Pistore, Paolo Traverso, Piergiorgio Bertoli, University of Trento, Italy</i> ▪ Course of Action Generation for Cyber Security Using Classical Planning <i>Mark Boddy, Johnathan Gohde, Tom Haigh, Steven Harp, Adventium Labs, USA</i>	<i>Session-Chair: José-Luis Ambite</i>
10:30	Coffee Break	<i>Mark Thomas Foyer</i>
11:00 - 12:30	Search for P&S I ▪ Beam-Stack Search: Integrating Backtracking with Beam Search <i>Rong Zhou, Eric Hansen, Mississippi State University, USA</i> ▪ Contingent Planning via Heuristic Forward Search with Implicit Belief States <i>Jörg Hoffmann, Ronen Brafman, Max-Planck-Institut für Informatik Saarbrücken, Germany</i> ▪ A Generalized Framework for Lifelong Planning A* <i>Maxim Likhachev, Sven Koenig, Carnegie Mellon University, USA</i>	<i>Session-Chair: Malik Ghallab</i>
12:30 - 1:30	Lunch	<i>Pacific-Grove, Hyatt Monterey Resort</i>
1:30 - 2:00	Business Meeting	
2:00 - 3:30	Dynamic and Cumulative P&S ▪ Plan Repair as an Extension of Planning <i>Roman van der Krogt, Mathijs de Weerd, Delft University of Technology, Netherlands</i> ▪ Online Stochastic Optimization Without Distributions <i>Russell Bent, Pascal van Hentenryck, Brown University, USA</i> ▪ Randomized Large Neighborhood Search for Cumulative Scheduling <i>Daniel Godard, Philippe Laborie, Wim Nuijten, ILOG, France</i>	<i>Session-Chair: Stephen Smith</i>
3:30	Coffee Break	<i>Mark Thomas Foyer</i>
4:00 - 5:30	Domain Models and Learning ▪ Discovering Planning Invariants as Anomalies in State Descriptions <i>Proshanto Mukherji, Lenhart Schubert, University of Rochester, USA</i> ▪ Learning Partial-Order Macros from Solutions <i>Adi Botea, Martin Mueller, Jonathan Schaeffer, University of Alberta, Canada</i> ▪ Learning Action Models from Plan Examples with Incomplete Knowledge <i>Qiang Yang, Kangheng Wu, Yunfei Jiang, Hong Kong University of Science & Technology, China</i>	<i>Session-Chair: Daniel Borrajo</i>
5:30 - 5:50	K.E. Competition Results	
6:00 - 8:00	Doctoral Consortium, System Demonstrations, Poster & Reception	<i>Pacific-Grove, Hyatt Monterey Resort</i>
8:00 - 8:30	Talk by Marcia McNutt	<i>Pacific-Grove, Hyatt Monterey Resort</i>

All technical sessions are located in the Regency Grand Ballroom, Second Floor.

Thursday, June 9th

8:30 - 9:30	Invited Talk <ul style="list-style-type: none"> ▪ Understanding Human Behavior from Sensor Data <i>Henry Kautz, University of Washington, USA</i> 	<i>Session-Chair: Karen Myers</i>
9:30 - 10:30	Mixed-Initiative P&S <ul style="list-style-type: none"> ▪ Activity Planning for the Mars Exploration Rovers <i>John Bresina, Ari Jonsson, Paul Morris, Kanna Rajan, NASA Ames Research Center, USA</i> ▪ Planning As Mixed-initiative Goal Manipulation <i>Michael Cox, Chen Zhang, Wright State University, USA</i> 	<i>Session-Chair: Pauline Berry</i>
10:30	Coffee Break	<i>Mark Thomas Foyer</i>
11:00 - 12:30	Search for P&S II <ul style="list-style-type: none"> ▪ Characterizing the Distribution of Low-Makespan Schedules in the Job Shop Scheduling Problem <i>Matthew Streeter, Stephen Smith, Carnegie Mellon University, USA</i> ▪ External Symbolic Heuristic Search with Pattern Databases <i>Stefan Edelkamp, University of Dortmund, Germany</i> ▪ Planning Graph Heuristics for Selecting Objectives in Over-subscription Planning Problems <i>Romeo Sanchez, Subbarao Kambhampati, Arizona State University, USA</i> 	<i>Session-Chair: Maria Fox</i>
12:30 - 2:00	Lunch	<i>Pacific-Grove, Hyatt Monterey Resort</i>
2:00 - 3:30	Temporal Planning <ul style="list-style-type: none"> ▪ On the Tractability of Restricted Disjunctive Temporal Problems <i>T. K. Satish Kumar, Stanford University, USA</i> ▪ Concurrent Probabilistic Temporal Planning <i>Mausam, Daniel Weld, University of Washington, USA</i> ▪ Search Control in Planning for Temporally Extended Goals <i>Froductal Kabanza, Sylvie Thiebaux, Universite de Sherbrooke, Canada</i> 	<i>Session-Chair: Martha Pollack</i>
3:30	Coffee Break	<i>Mark Thomas Foyer</i>
4:00 - 5:00	Planning under Uncertainty <ul style="list-style-type: none"> ▪ Pruning Conformant Plans by Counting Models on Compiled d-DNNF Representations <i>Hector Palacios, Blai Bonet, Adnan Darwiche, Hector Geffner, Universitat Pompeu Fabra, Spain</i> ▪ Fast Exact Planning in Markov Decision Processes <i>H. Brendan McMahan, Geoffrey Gordon, Carnegie Mellon University, USA</i> 	<i>Session-Chair: Sylvie Thiebaux</i>
5:00 - 6:15	Festivus	
6:30 - 10:30	Conference Dinner and Awards Ceremony *	<i>Monterey Bay Aquarium</i>

* Bus boarding at 6:30 PM, departure at 6:45 PM

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Friday, June 10th

8:30 - 9:30	Invited Talk <ul style="list-style-type: none"> ▪ Optimal and Real-Time Scheduling using Model Checking Technology <i>Kim Guldstrand Larsen, Aalborg University, Denmark</i> 	<i>Session-Chair: Susanne Biundo</i>
9:30 - 10:30	Applications of P&S II <ul style="list-style-type: none"> ▪ On-line Planning and Scheduling for High-speed Manufacturing <i>Wheeler Ruml, Minh Do, Markus Fromherz, Palo Alto Research Center, USA</i> ▪ Minimizing Breaks in Sport Scheduling with Local Search <i>Pascal van Hentenryck, Yannis Vergados, Brown University, USA</i> 	<i>Session-Chair: Amedeo Cesta</i>
10:30	Coffee Break	<i>Mark Thomas Foyer</i>
11:00 - 12:30	Anytime P&S <ul style="list-style-type: none"> ▪ Enabling Fast Flexible Planning through Incremental Temporal Reasoning with Conflict Extraction <i>I-hsiang Shu, Robert Effinger, Brian Williams, MIT, USA</i> ▪ Anytime Dynamic A*: An Anytime, Replanning Algorithm <i>Maxim Likhachev, David Ferguson, Geoffrey Gordon, Anthony Stentz, Sebastian Thrun, Carnegie Mellon University, USA</i> ▪ Maximizing Availability: A Commitment Heuristic for Oversubscribed Scheduling Problems <i>Laurence Kramer, Stephen Smith, Carnegie Mellon University, USA</i> 	<i>Session-Chair: Adele Howe</i>
12:30 - 2:00	Lunch	<i>Pacific-Grove, Hyatt Monterey Resort</i>
2:00 - 3:30	Overconstrained Problems <ul style="list-style-type: none"> ▪ Planning with Goal Preferences and Constraints <i>Ronen Brafman, Yuri Chernyavsky, NASA Ames Research Center & Stanford University, USA</i> ▪ Solving Over-constrained Disjunctive Temporal Problems with Preferences <i>Bart Peintner, Michael Moffitt, Martha Pollack, University of Michigan, USA</i> ▪ Retaining Flexibility to Maximize Quality: When the Scheduler Has the Right to Decide Activity Duration <i>Xiaofang Wang, Stephen Smith, Carnegie Mellon University, USA</i> 	<i>Session-Chair: Nicola Muscettola</i>
3:30	Coffee Break	<i>Mark Thomas Foyer</i>
4:00 - 5:00	Planning via Modelchecking <ul style="list-style-type: none"> ▪ Satisfiability Planning with Constraints on the Number of Actions <i>Markus Büttner, Jussi Rintanen, Albert-Ludwigs-Universität Freiburg, Germany</i> ▪ A Hierarchical Task-Network Planner based on Symbolic Model Checking <i>Ugur Kuter, Dana Nau, Marco Pistore, Paolo Traverso, University of Maryland, USA</i> 	<i>Session-Chair: Toby Walsh</i>
5:00 - 6:00	New Techniques for Planning <ul style="list-style-type: none"> ▪ Reviving Integer Programming Approaches for AI Planning: A Branch-and-Cut Framework <i>Menkes van den Briel, Thomas Vossen, Subbarao Kambhampati, Arizona State University, USA</i> ▪ Genetic Planning Using Variable Length Chromosomes <i>Alexandru Horia Brie, Philippe Morignot, Ecole Polytechnique Palaiseau, France</i> 	<i>Session-Chair: Mark Boddy</i>
6:00	Closing Remarks	

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ICAPS 2005
Monterey, California, USA
June 6-10, 2005

CONFERENCE CO-CHAIRS:

Susanne Biundo
University of Ulm, GERMANY

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