

ECP is a major international conference for presentation of new research in AI Planning and Scheduling, and a fruitful opportunity for contact and cross-fertilization among the different "souls" in the field. It has taken place in Europe every other year since 1991. It has evolved very quickly from a restricted workshop mainly devoted to the presentation of European research to a well established conference devoted to the presentation of rigorous and innovative research results from the international community. The sixth ECP conference will take place in the center of historical Toledo, the very well known old Spanish city, crossing of many different cultures. ECP-01 would like to follow its established scientific tradition, also including events that highlight specific aspects of planning and scheduling research in the new millennium.

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#### Conference Location

The Conference will take place in the Museum Victorio Macho, in Toledo (Spain).

For information about the city of Toledo (just 70 kilometers from Madrid) and its surroundings, visit <http://www.virtourist.com/europe/toledo>



Artificial Intelligence Journal



PLANET 2  
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ScALAB  
Systems, Complex and  
Adaptive Laboratory



PST  
Planning and Scheduling  
Team at IP-CNR



6<sup>th</sup> European Conference  
on Planning

(ECP-01)

Toledo, Spain  
September 12-14, 2001

<http://scalab.uc3m.es/~ecp01/>

Call for Participation

## September 12, 2001 (Wednesday)

- 8:45-9:15 **Registration**  
9:15-9:30 **Opening**  
9:30-10:30 *Hector Geffner (Invited Speaker)*  
10:30-11:20 **Domain Independent Planning 1**  
*D. Vrakas, I. Vlahavas*, Combining Progression and Regression in State-Space Heuristic Planning  
*S. Edelkamp*, Planning with Pattern Databases  
11:20-11:50 **Coffe Break**  
11:50-12:40 **Domain Independent Planning 2**  
*I.Razgon, R.I. Brafman*, A Forward Search Planning Algorithm with a Goal Ordering Heuristic  
*J. Porteous, L. Sebastia, J. Hoffmann*, On the Extraction, Ordering, and Usage of Landmarks in Planning  
12:40-13:30 **Analysis of Relevant Domains**  
*W. Hatzack, B. Nebel*, The Operational Traffic Control Problem: Computational Complexity and Solutions  
*J-P. Watson, J.C. Beck, A.E. Howe, L.D. Whitley*, Toward an Understanding of Local Search Cost in Job-Shop Scheduling  
13:30-15:00 **Lunch**  
15:00-15:25 **Planning and Information Retrieval**  
*D. Camacho, D. Borrajo, J.M. Molina, R. Aler*, Flexible Integration of Planning and Information Gathering  
15:25-15:55 **Benchmark Papers**  
*S. Thiébaux, M-O. Cordier*, Supply restoration in power distribution systems -- a benchmark for planning under uncertainty  
*B. Engelhardt, S. Chien, A. Barrett, J. Willis, C. Wilklow*, The DATA-CHASER and Citizen Explorer Benchmark Problem Sets  
15:55-16:15 **Coffe Break**  
16:15-17:45 **Concise Poster & Demo Plenary Presentations**  
17:45-19:15 **Benchmark, Poster and Demo Session**

### Cocktail Party Sponsored by PLANET 2

## September 13, 2001 (Thursday)

- 9:30-10:30 *Pascal Van Hentenryck (Invited Speaker)*  
10:30-11:20 **P&S Integration 1**  
*M.B. Do, S. Kambhampati*, Sapa: A Domain-Independent Heuristic Metric Temporal Planner  
*P. Haslum, H. Geffner*, Heuristic Planning with Time and Resources  
11:20-11:50 **Coffe Break**  
11:50-12:40 **P&S Integration 2**  
*K.L. Myers, S.F. Smith, D.W. Hildum, P.A. Jarvis, R. de Lacaze*, Integrating Planning and Scheduling through Adaptation of Resource Intensity Estimates  
*B. Clement, A.C. Barrett, G.R. Rabideau, E.H. Durfee*, Using Abstraction in Planning and Scheduling  
12:40-13:30 **HTN Planning**

- S. Biundo, B. Schattenberg*, From Abstract Crisis to Concrete Relief. A Preliminary Report on Combining State Abstraction and HTN Planning  
*L. Castillo, J. Fdez-Olivares, A. González*, On the Adequacy of Hierarchical Planning Characteristics for Real-World Problem Solving  
13:30-15:00 **Lunch**  
15:00-15:50 **Scheduling and Robustness**  
*A.J. Davenport, C. Gefflot, J.C. Beck*, Slack-based Techniques for Robust Schedules  
*B. Drabble, N. Haq*, Dynamic Schedule Management: Lessons from the Air Campaign Planning Domain  
15:50-16:10 **Coffe Break**  
16:10-17:25 **Constraint-based Tools for Supporting P&S**  
*P. Laborie*, Algorithms for Propagating Resource Constraints in AI Planning and Scheduling: Existing Approaches and New Results  
*R. Trinquart, M. Ghallab*, An Extended Functional Representation in Temporal Planning: Towards Continuous Change  
*A. Oddi*, Constraint-Based Strategies for the Disjunctive Temporal Problem: Some New Results

### Evening: ECP Social Dinner

## September 14, 2001 (Friday)

- 9:30-10:30 *Vladimir Lifschitz (Invited Speaker)*  
10:30-11:30 **Planning in Non Deterministic Domains 1**  
*C. Castellini, E. Giunchiglia, A. Tacchella*, Improvements to SAT-Based Conformant Planning  
*M. Pistore, R. Bettin, P. Traverso*, Symbolic Techniques for Planning with Extended Goals in Non-Deterministic Domains  
11:30-11:50 **Coffe Break**  
11:50-12:40 **Planning in Multi-Agent Domains**  
*R.M. Jensen, M.M. Veloso, M.H. Bowling*, OBDD-Based Optimistic and Strong Cyclic Adversarial Planning  
*C. Domshlak, Y. Dinitz*, Multi-Agent Off-Line Coordination: Structure and Complexity  
12:40-13:30 **Planning in Non Deterministic Domains 2**  
*Z. Feng, E.A. Hansen*, Approximate Planning for Factored POMDPs  
*W. Zhang, N.L. Zhang*, Solving Informative Partially Observable Markov Decision Processes

- 13:30-15:00 **Lunch**  
15:00-15:50 **Domain Independent Planning 3**  
*Y. Dimopoulos*, Improved Integer Programming Models and Heuristic Search for AI Planning  
*J. Hoffmann, B. Nebel*, RIFO Revisited: Detecting Relaxed Irrelevance  
15:50-16:10 **Coffe Break**  
16:10-17:00 **Domain Independent Planning 4**  
*M. Shanahan*, Using Reactive Rules to Guide a Forward-Chaining Planner  
*M. Helmert*, On the Complexity of Planning in Transportation Domains  
17:00-17:15 **Closing Session**

### Poster Presentations

- K. Subramani*, Modeling Clairvoyance and Constraints in Real-time Schedule  
*A. Meier, C.P. Gomes, E.Melis*, Randomization and Restarts in Proof Planning  
*I. Tsamadinos, M.E. Pollack, P. Ganchev*, Flexible Dispatch of Disjunctive Plans  
*M. Beetz, T. Belker*, Learning Robot Action Plans for Controlling Continuous, Percept-driven Behavior  
*A. Garrido, E. Onaindia, F. Barber*, Time-Optimal Planning in Temporal Problems  
*P. Bertoli, A. Cimatti, M. Roveri*, Conditional Planning under Partial Observability as Heuristic-Symbolic Search in Belief Space  
*C.H. Westerberg, J. Levine*, Optimising Plans using Genetic Programming  
*D. Furcy, S. Koenig*, Combining Two Fast-Learning Real-Time Search Algorithms Yields Even Faster Learning  
*D. S. Bernstein, S. Zilberstein*, Reinforcement Learning for Weakly-Coupled MDPs and an Application to Planetary Rover Control  
*J. Argelich et al.*, Generating hard Satisfiable Scheduling Instances  
*J. Farquhar, C. Harris*, Beyond Plan Length: Heuristic Search Planning for Maximum Reward Problems

### Demos

- K.L. Myers, P.A. Jarvis, T.J. Lee*, CODA: Coordinating Human Planners  
*R.M. Simpson et al.*, GIPO: An Integrated Graphical Tool to Support Knowledge Engineering in AI Planning  
*R. Sherwood et al.*, An Integrated Planning and Scheduling Prototype for Automated Mars Rover Command Generation  
*S.Chien et al.*, A Demonstration of Robust Planning, Scheduling and Execution for the Techsat-21 Autonomous Sciencecraft Constellation  
*A. Gerevini, L. Schubert*, DISCOPLAN: an Efficient On-line System for Computing Planning Domain Invariants