Call for Papers/Participation

ECAI-2000 Workshop on

Local Search for Planning & Scheduling

Humboldt University, Berlin, Germany, August 21, 2000

Chair

Alexander Nareyek

GMD FIRST
Kekuléstraße 7
D - 12489 Berlin
Germany

Tel: +49 177 792 37 36
Fax: +49 30 6392 1805

E-mail: `alex@ai-center.com`

Committee

Emile H. L. Aarts	Philips Research
José Luis Ambite	Univ. of Southern California
Blai Bonet	University of California
Ronen I. Brafman	Ben-Gurion University
Steve Chien	NASA JPL
Andrew Davenport	IBM T. J. Watson
Alfonso Gerevini	Università di Brescia
Holger H. Hoos	Univ. of British Columbia
Alexander Nareyek	GMD FIRST
Angelo Oddi	IP-CNR
María C. Riff	Univ. Téc. Fed. Santa María
Bart Selman	Cornell University
Edward Tsang	University of Essex

Important Dates

Submission Deadline:
May 15, 2000

Submission Notification:
May 29, 2000

Final Submission Due:
June 12, 2000

Additional Information

ECAI-2000 Homepage:
`http://www.ecai2000.hu-berlin.de/`

Workshop Homepage:
`http://www.ai-center.com/events/ecai-2000-ws`

With the increasing deployment of planning and scheduling systems, developers are often faced with requirements such as very large search spaces, real-time performance demands and dynamic environments. Complete refinement methods do not scale very good, leaving local search methods as the only practical alternative. A dynamic environment promotes an application of local search as well, because the search heuristics are not normally affected by modifications of the search space. Furthermore, local search is very appropriate for anytime requirements as the optimization goal is improved in an iterative way. Such advantages are offset by the incompleteness of most local search methods, resulting in lack of proof of inconsistency or optimality of the solutions generated. Popular local search approaches include evolutionary algorithms, simulated annealing, tabu search, min-conflicts, GSAT and Walksat.

There exists a significant overlap in the issues addressed by solution techniques for planning and scheduling, such as reasoning about temporal and resource aspects. The workshop will bring together researchers from the planning and scheduling communities to explore these issues with respect to local search procedures. The workshop may also be of interest to a broader audience interested in general issues in local search. Workshop topics will include:

- Neighborhoods for planning & scheduling
- Search-space analysis
- Techniques to avoid local minima and plateaus
- Reasoning about temporal, spatial and other resources
- Integration of planning & scheduling
- Comparisons to complete search
- Combinations of local search and complete search

Attendance

Participants will be selected based on refereed submissions. If you wish to attend but are not submitting a paper, please send a one-page statement of interest by the submission deadline.

Submissions

Paper submissions should be no longer than six pages. Guidelines for the submission format can be found at:

`http://www.aaai.org/Publications/Templates/macros-link.html`.

Papers may be submitted by e-mailing a document's URL to the workshop chair. If this is not possible, please contact the workshop chair. Accepted submissions will be included in the workshop's working notes. After the workshop, authors will be expected to submit revised papers for a volume in the Springer series Lecture Notes in Artificial Intelligence (LNAI).