

Preface

Welcome to the fifth International Conference on Artificial Intelligence Planning and Scheduling (AIPS 2000), being held at Breckenridge, Colorado. In recent years, AI planning and scheduling have emerged as technologies critical to production management, space systems, the Internet, and military applications. The International Conference on AI Planning and Scheduling has evolved into the premier forum for researchers and practitioners in planning and scheduling.

This year, we are excited to collocate with the Conference on the Principles of Knowledge Representation and Reasoning (KR-2000), at Breckenridge, Colorado. We share a full day of talks on topics of common interest to KR and AIPS attendees, providing an excellent opportunity for cross-fertilization in the knowledge representation, planning, and scheduling communities.

In addition to the presentation of technical papers, the conference program includes invited talks by Drew McDermott of Yale University (on bottom-up knowledge representation), and by David Smith of NASA/AMES (on bridging the gap between planning and scheduling). There is a panel on future directions for planning and scheduling research, with Jimi Crawford (I2 Technologies), James Hendler (DARPA/ University of Maryland), Jana Koehler (Schindler Lifts) and David Wilkins (SRI).

Continuing the tradition from AIPS-98, we also have a lively workshop program prior to the conference. The topics of the workshops include decision theoretic planning, model-based planning, and domain-modeling, and preprocessing for planning.

The conference will also host a planning competition, organized by Faheim Bacchus of University of Toronto, and a scheduling competition organized by David Smith of NASA AMES.

These proceedings contain the papers presented at the conference. A total of 84 papers were submitted to the conference. While the reviewing of the majority of the papers was coordinated by the program chairs, the papers submitted by the program chairs and their immediate associates were coordinated independently by Dana Nau of University of Maryland.

Ultimately, the program committee selected 30 of these papers for oral presentation and 15 for poster presentation. The papers span a wide range of topics. While a majority deal with algorithms for planning and scheduling in a variety of environments be they static or dynamic, deterministic or stochastic, or completely or partially observable, there are also papers on planner implementation and applications of planning and scheduling research.

As a testimony to the growing importance of planning and scheduling technology, we have been successful in attracting financial and material support from a variety of organizations. We take this opportunity to acknowledge the support from: DARPA, NASA/JPL, Arizona State University, and the University of Southern California Information Sciences Institute, I2 Corporation, Blue Pumpkin Software, IBM, the NASA Ames Research Center, Franz Inc, Schindler Lifts, SA, and AT&T. AIPS 2000 is held in cooperation with AAAI.

Many people worked hard to make this conference possible. The program committee and the additional reviewers provided very high quality reviews. Bart Selman helped organize the workshops. Jana Koehler helped in publicizing the conference. Faheim Bacchus and David Smith organized the planning and Scheduling competitions. Dana Nau handled the reviewing of the papers that presented potential conflicts-of-interest for the program chairs. Tony Barrett helped in coordinating the reviews and communicating the decisions to the authors. Adele Howe helped in local arrangements. The KR organizers—Bart Selman, Fausto Guinchiglia, Tony Cohn, and Peter Patel-Schneider—exchanged countless messages with us in finalizing the co-location details. Keri Harvey and Carol Hamilton of AAAI helped in conference organization. To all of them, as well as the organizations who extended material and financial support to the conference, we extend our grateful thanks.

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