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... and to all the following :

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## AAAI - 2002

### W20: Workshop on Spatial and Temporal Reasoning

Welcome to the Workshop on Spatial and Temporal Reasoning at AAAI-2002 in Edmonton, Alberta, Canada. This workshop continues in the spirit of a series of such activities over the last 10 years in spanning related communities of researchers that study representing and reasoning about either space or time—or both. In addition, rather than focusing on theory, the workshop has encouraged a mix of theory and applied work. While a number of central themes recur, a wide variety of topics typify the workshops.

Various of basic representational problems in space (direction, location, proximity, geometry, intersection) and in time (coincidence, order, concurrency, overlap, granularity) attract repeated attention due to their fundamental and difficult nature. Likewise, common reasoning problems thread their way through many papers on space (path finding, orientation, relative position) and time (constraint satisfaction, schedule optimization, precedence). Beyond that, however, the richness of different ontologies, different applications, and different objectives assures that no small collection of “solutions” will serve to satisfy all needs. The established intractability of many reasoning problems also broadens the search for approximate and partial solutions.

In this year’s workshop the papers are equally divided between spatial and temporal problems, with each paper taking on a different aspect of the challenge. Selecting a route, reasoning about angular directions, and determining if one object contains another occupy the spatial research; dealing with mixed granularity, solving changing constraints efficiently, and general reasoning via a temporal logic sum up the temporal research.

The interchange between spatial research and temporal methods has proved fruitful, particularly in the domain of qualitative reasoning. It is the continued wish of the organizers that the presentations and interchange in this workshop stimulate cross-fertilization, new applications of known techniques, and new approaches to well-studied applications. Your attendance at the workshop indicates your interest in finding computerized solutions to representation and reasoning problems that deal with space and time, be they geographic or robotic, dealing with transportation or communication, theoretical or applied.

The contributed presentations include 6 papers divided into 2 sessions: first spatial, then temporal. These paper sessions are alternated with discussion sessions, providing structured opportunities for interaction. The breaks, of course, allow more informal venues for exchange.

We hope you come away with a richer knowledge, sharing our view that space and time may serve as a unifying theme for many areas, and that we may contribute to some standardization of terminology, principles, and results which cut through so much research.

**Frank D. Anger**  
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