

Benchmarks & Applications of Spatial Reasoning

IJCAI-11 Workshop, July 17
Barcelona, Spain

Do you work on a problem that has a significant spatial component? A problem where you need to represent spatial information and reason about this information? If so, then please continue reading, we would like to hear from you!

Overview

Things are happening in spatial reasoning. Recent years have witnessed remarkable advances in some of the long standing problems of the field. While most previous research only addressed isolated research questions, the research community is putting more and more emphasis on being able to combine different approaches in order to solve larger scale real world problems. Similar to other research communities such as planning or satisfiability, the spatial reasoning community has started to develop a repository of benchmark problems as well as a common representation language which allows to formally define and represent these benchmark problems. This will allow researchers to focus their research efforts on solving important problems, on identifying and addressing gaps in existing capabilities, and on integrating the necessary approaches, tools and methodologies. It guides the research of the community into jointly achieving far greater impact and also increases the visibility of the community by emphasising realistic problems that other people can relate to. In other research communities, this approach has significantly strengthened the community and led to a boost in both quantity and quality of results. We hope that it will have a similar effect on our research community.

This workshop is the third in a series of events that started with a AAAI Spring Symposium in 2009 and a Dagstuhl Seminar in 2010. It will be the first that is targeted towards the wider AI and spatial reasoning community.

Topics of Interest

The aim of the workshop is to work towards our goal of having (1) a repository of applications and benchmark problems, (2) a common problem language, as well as (3) general methods and tools for solving these problems.

We invite (short) papers, demonstrations and position papers on all aspects of spatial reasoning. Of particular interest are submission in one of the following areas:

(1a) Applications: Submissions presenting specific problems or applications that have a significant spatial component and that require some form of spatial reasoning. What kind of spatial information is used, how is it represented, what kind of reasoning is required, how is it currently done? What are the strengths and weaknesses of current approaches, how could it be improved?

(1b) Benchmarks: Submissions that propose new benchmarks, analyze benchmarks, or present methods for the generation, organization, or improvement of benchmarks. Submissions that present an overview of the use of benchmarks

in other disciplines are also encouraged if they include a discussion of how the lessons learnt in other disciplines can benefit benchmarking in spatial reasoning.

(2) Problem Languages: Submissions with new results on languages for representing spatial information, such as proposals of new languages, analysis, comparison, improvement of languages, or combination of languages. Submissions that present an overview of the use of common problem languages in other disciplines are also encouraged if they include a discussion of how the lessons learnt in other disciplines can benefit the development of common representation languages for spatial reasoning.

(3) Methods and Tools: Submissions with new results on methods and tools for spatial reasoning, such as proposal of new methods, analysis, comparison, improvement of methods, or combination of methods.

Paper Submission

Authors are invited to submit a paper in PDF format by April 18, 2011, through the EasyChair website of the workshop (<https://www.easychair.org/conferences/?conf=basr11>). Papers must be written in English and describe original work in at least one of the workshop topics. The target length of paper contributions is 4-6 pages (including abstract, figures and references) in the IJCAI-11 style (<http://ijcai-11.iiia.csic.es/files/ijcaill.tar>). The final camera ready version of your paper should not include any headers, footers, and page numbers.

Important Dates

Paper submission: April 18, 2011

Notification: May 9, 2011

Camera ready: May 23, 2011

Workshop: July 17, 2011

Program Committee

Alia Abdelmoty

Marco Aiello

Mehul Bhatt

Anthony G. Cohn (co-chair)

Jean-Francois Condotta

Matt Duckham

Antony Galton

Jason Jingshi Li

Reinhard Moratz

Bernhard Nebel

Marco Ragni

Jochen Renz (co-chair)

Christoph Schlieder

Steven Schockaert

Nico van de Weghe

Jan-Oliver Wallgruen

Stefan Woelfl (co-chair)