

# SOCS-2010

## CALL FOR PAPERS AND PARTICIPATION

### The Third International Symposium on Combinatorial Search

Heuristic search and other forms of combinatorial search are currently very active areas of research in Artificial Intelligence, Robotics, Planning and other areas of Computer Science. The International Symposium on Combinatorial Search (SoCS) is meant to bring researchers in such areas together to exchange their ideas and cross-fertilize the field.

SoCS is targeting researchers and submissions in all fields that use combinatorial search, including artificial intelligence, planning, robotics, constraint programming, operations research and bioinformatics.

#### RELEVANT TOPICS

- Analysis of search algorithms
- Automated synthesis of lower bounds
- Bounding and pruning techniques
- Continuous problem solving
- External-memory and parallel search
- Incremental and active learning in search
- Meta-reasoning and search
- Methodology and critiques of current practice
- Model-based search
- Meta-reasoning and search
- Random vs. systematic search strategy selection
- Pattern databases
- Portfolios of search algorithms
- Real-time search
- Search focus in goal-directed problem solving
- Search space discretization for continuous state-space problems
- Self-configuring and self-tuning algorithms
- Symmetry handling
- Time, memory, and solution quality trade-offs

#### SPECIAL SCOPE THIS YEAR: SEARCH IN PLANNING

Recently, search techniques and heuristics have been effectively applied to classic planning problems. SoCS-2010 will include a special session covering search in planning. We invite all researchers who use search in planning to participate and/or submit their work to SoCS-2010. In particular, we are interested in position papers covering the relationship between these fields.

#### SUBMISSION INFORMATION

We encourage researchers and attendees of SoCS to submit papers to the symposium. Submissions should be in AAAI format and up to 8 pages long. Submissions should report on substantial, original and new research.

We also encourage submissions of position papers which are intended for the discussion of ideas and concepts related to search. Examples would be thoughtful critiques of the field, historical perspectives and analysis, methodological contributions, insightful reports on new and demanding applications, and papers related to the challenge are of this year's conference. Submissions will be carefully peer-reviewed by multiple reviewers.

SoCS papers should be submitted to:

<http://www.easychair.org/conferences/?conf=socs10>

#### MULTIPLE SUBMISSIONS

In order to foster the exchange of ideas at SoCS, we encourage authors to submit papers describing new research which has been accepted to other venues. Authors should clearly indicate where a paper has been or will be published. Such papers will undergo a light reviewing process in order to ensure that they are of interest to the SoCS community. Authors will later need to submit a two-page abstract describing the work for inclusion in the proceedings by the camera-ready deadline.

#### THE SOCS PROCEEDINGS

New this year: SoCS will have a formal archival proceedings. However, authors of accepted papers (who submitted up to eight-page papers) can choose one of the two following publication options.

- A full paper. Up to eight pages will be allocated in the proceedings for such papers. Papers that will appear as full papers in the formal SoCS proceedings cannot be published elsewhere.

- Abstract only. Authors may choose to only include an abstract of their work in the formal archival proceedings. Up to two pages will be allocated in the proceedings for abstract papers. Full versions of such papers with significantly more material than the SoCS abstract are generally publishable in other venues. Similarly, a paper that was accepted/published elsewhere is welcomed as regular, full-paper submission to SoCS but may only appear as an abstract in the formal archival proceedings.

Position papers and papers published in other venues should be clearly labelled so as to ensure proper reviewing.

The decision whether to have a full version in the proceedings or only an abstract may be made by the authors near the date when the camera-ready version is needed.

#### SPECIAL STUDENT ACTIVITIES

SoCS is a student friendly event; we strongly encourage students to attend. SoCS 2010 will have time set aside for students to introduce themselves and their research to the community. In addition, we hope that we will be able to help students with funding for their trip to SoCS.

#### DATES AND LOCATION

SoCS will be co-located with AAAI-2010 and will take place at the Stone Mountain Resort, Atlanta, Georgia beginning with an evening banquet on Thursday, July 8 and finishing on the afternoon of Saturday, July 10, 2010.

#### Tentative important dates:

Submission: April 2, 2010

Notification: May 5, 2010

Camera ready: June 18, 2010

SOCS: July 8-10, 2010

SOCS web site: <http://socs10.search-conference.org/>

#### SOCS-2010 chairs:

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