

THIRD CALL FOR PAPER AND PARTICIPATION
(SoCS-2011)
July 15-16, 2011. Barcelona, Spain

SoCS'11 is the Fourth installment of the The 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.

Topics of Interest

SoCS is targeting researchers and submissions in all fields that use combinatorial search, including artificial intelligence, planning, robotics, constraint programming, operations research and bioinformatics. Overall, the main focus of SoCS is on the design of novel heuristic search methods, analysis of existing heuristic search methods and their applications. More specifically, topics of interest include but are not limited to the following:

- Analysis of search algorithms
- Automated synthesis of lower bounds
- Bounding and pruning techniques
- Combinatorial puzzles
- 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 Robotics

SoCS-2011 will include a special session covering search in robotics. Heuristic search has been used to solve effectively a number of challenging planning problems in robotics. Furthermore, planning problems in robotics present a number of research challenges that are frequently absent in classic planning problems. We invite all researchers who use search in robotics to participate and/or submit their work to SoCS-2011. 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 area of this years conference.

Submissions will be carefully peer-reviewed by multiple reviewers.

SoCS papers should be submitted to:

<http://www.easychair.org/conferences/?conf=socs2011>

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

SoCS has 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 a 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 labeled 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. In addition, we hope that we will be able to help students with funding for their trip to SoCS. SoCS 2011 will have a special session, called the student introduction session. In this session, each student will have a few minutes to introduce himself/herself and his research interests and achievements to the entire community. We strongly encourage all students who are attending SOCS to actively participate in this event. More information on how to register for this event will be found in the SoCS student page.

Dates and Location

SoCS will be co-located with IJCAI'11 and will take place in Cardona Paradors, Barcelona (Spain) - a beautiful ninth century fortress converted into a hotel. The symposium will start on the early morning of Friday July 15 and will finish up in the late afternoon of Saturday, July 16, 2011. Limited bus shuttle services will be provided (e.g., from the airport in Barcelona to SoCS on Thursday evening and from SoCS to IJCAI on Saturday evening).



Awards

There will be three awards this year:

- **Best paper award.** The paper chosen to receive this award will also be presented at IJCAI (thanks to the organizers of IJCAI!) though it will not be printed at the IJCAI proceedings.
- **Best student paper award.** A student has to be the first author on a paper in order to be considered for this award.
- **Best Programme Committee member.** This award will recognize the PC member whose efforts to maintain the quality of the reviewing process at SoCS were outstanding.

Important Dates

- Submission deadline: **April 28, 2011**
- Notification: May 30, 2011
- Camera-ready version due: June 23, 2011
- SoCS Conference: July 15-16, 2011
- SOCS web site: <http://www.socs11.org/>

Sponsorship

Thanks to AIJ, limited support will be provided to students to cover their travel expenses.

SOCS-2011 chairs

- Daniel Borrajo, Universidad Carlos III de Madrid, Spain,
<http://www.plg.inf.uc3m.es/~dborrajo>
- Maxim Likhachev, Carnegie Mellon University, USA,
<http://www.cs.cmu.edu/~maxim>
- Carlos Linares, Universidad Carlos III de Madrid, Spain,
<http://www.plg.inf.uc3m.es/~clinares>