The 33rd International Symposium on Computational Geometry (SoCG'17)
Brisbane, Australia, July 4-7, 2017

Call for Papers

The 33rd International Symposium on Computational Geometry will be held in Brisbane, Australia, July 4-7, 2017, as part of Computational Geometry Week. We invite submissions of high-quality that describe original research on computational problems in a geometric setting, in particular their algorithmic solutions, implementation issues, applications, and mathematical foundations. The program committee intends to interpret the scope of the conference broadly, and will consider all papers that are of significant interest to the computational geometry research community. Topics of interest include, but are not limited to:

- Design, analysis, and implementation of geometric algorithms and data structures; lower bounds on the computational complexity of geometric problems.
- Mathematical, numerical, and algebraic issues arising in the formulation, analysis, implementation, and experimental evaluation of geometric algorithms and heuristics; discrete and combinatorial geometry; computational topology.
- Novel algorithmic applications of geometry in combinatorial optimization, computational biology, computer graphics, computer-aided design and manufacturing, database systems, discrete differential geometry, geographic information systems, geometric modeling, graph drawing, machine learning, medical imaging, pure mathematics, robotics, scientific computing, sensor networks, statistical analysis, theoretical computer science, and other fields.

Important Dates

November 28, 2016	: Paper abstracts (at most 300 words) due 23:59, UTC-12
December 5, 2016	: Paper submissions due 23:59, UTC-12
February 12, 2017	: Notification of acceptance/rejection of papers
March 20, 2017	: Final versions of accepted papers due
July 4-7, 2017	: Symposium

Publication and Awards

Final versions of accepted papers will be published by LIPIcs (Leibniz International Proceedings in Informatics) in the symposium proceedings. An author of each accepted paper will be expected to attend the conference and present the paper (approximately 20 minutes). Authors of a selection of papers from

the conference will be invited to submit extended versions of their papers to special issues of *Discrete & Computational Geometry* and *Journal of Computational Geometry*. An award will be given to the best paper, and its authors will be invited to submit an extended version to the *Journal of the ACM*. A best student presentation award will also be given based on the quality of the presentation of a paper by a student during the conference.

Submission Guidelines

Submissions must be formatted in accordance with the LIPIcs proceedings guidelines and not exceed 15 pages including title page and references, but excluding a clearly marked appendix (further described below). LIPIcs typesetting instructions can be found at http://www.dagstuhl.de/en/publications/lipics and the lipics.cls LaTeX style file at http://drops.dagstuhl.de/styles/lipics/lipics-authors.tgz. Final proceedings versions of accepted papers must be formatted using the same rules but without the appendix. (See http://drops.dagstuhl.de/opus/portals/lipics/index.php?semnr=16005 for the proceedings of 2016.)

We welcome both theoretical and practical submissions. In order to ensure that a submission is evaluated appropriately, we ask authors to identify the main thrust of the submission by checking one of the following categories via EasyChair (see link to submission page below).
(T) Contributions to the theory of computational geometry
(P) Contributions to practical aspects of computational geometry
(B) Contributions to both theory and practice
There are no quotas for the categories nor will there be separate tracks.

Papers should be submitted in the form of an extended abstract, which begins with the title of the paper, each author's name and affiliation, as well as a short abstract. This should be followed by the main body of the paper that begins with a precise statement of the problem considered, a succinct summary of the results obtained (emphasizing the significance, novelty, and potential impact of the research), and a clear comparison with related work. The remainder of the extended abstract should provide sufficient details to allow the program committee to evaluate the validity, quality, and relevance of the contribution. Clarity of presentation is very important; the entire extended abstract should be written carefully, taking into consideration that it will be read and evaluated by both experts and non-experts, often under tight time constraints. All details needed to verify the results must be provided. Supporting materials, including proofs of theoretical claims and experimental details, that do not fit in the 15-page limit should be given in an appendix. If more appropriate, the full version may be given as the appendix. In both cases, however, the authors should include in the main part specific pointers to the relevant locations in the appendix. The appendix will be read by the program committee members at their discretion and will not be published as part of the proceedings. Thus the paper without the appendix should be able to stand on its own. Submissions deviating from the above guidelines risk being rejected without further consideration.

Results previously published or accepted for publication in the proceedings of another conference cannot be submitted. Simultaneous submissions of the results to another conference with published proceedings are not allowed. Exempted are workshops and conferences without formal proceedings, but possibly with handouts containing short abstracts. Results that have already been accepted (with or without revision) for publication by a journal at the time of their submission to the conference are not allowed. A paper submitted to a journal but not yet accepted to it can be submitted to the symposium. In such cases, the

authors must mention this on the front page of the submission and clearly identify the status of the journal submission as of November 28, 2016.

Paper Submission

All submissions must be made electronically; see the [EasyChair SoCG2017 web page](#) for detailed submission instructions.

Program Committee

Peyman Afshani	Madalgo, Denmark
Boris Aronov (co-chair)	New York University, USA
Maike Buchin	Ruhr University Bochum, Germany
Danny Chen	University of Notre Dame, USA
Sariel Har-Peled	University of Illinois at Urbana-Champaign, USA
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