



Call for Papers, Videos and Multimedia 19th ACM Symposium on COMPUTATIONAL GEOMETRY

<http://www.umd.edu/areas/Theory/socg03>
June 8–10, 2003 – San Diego, USA

In conjunction with FCRC 2003
Sponsored by ACM SIGACT and SIGGRAPH

Call for Papers

The 19th ACM Symposium on Computational Geometry, featuring both theoretical and applied research, and a video review, will be held at the Town and Country Resort & Conference Center in San Diego (USA) as part of the Federated Computer Research Conference (FCRC 2003). We invite high-quality submissions in the following research areas:

- Geometric algorithms and combinatorial geometry;
- Implementation issues and applications of computational geometry.

The accepted papers will be published in the symposium proceedings published by the ACM and distributed at the symposium. The proceedings will also be available separately for purchase from the ACM. A selection of papers from the conference will be invited to special issues of journals. There will be a prize for the best student-authored paper (see below).

Research in computational geometry is very diverse, ranging from applied to theoretical, and the topics of the Symposium reflect this. Examples of more applied topics are: experimental analysis of algorithms and data structures; mathematical and numerical issues arising from implementations; and novel uses of computational geometry in other disciplines, such as robotics, computer graphics, geometric and solid modeling, manufacturing, geographical information systems, and molecular biology. Examples of more theoretical topics are: design and theoretical analysis of geometric algorithms and data structures; lower bounds for geometric problems; and discrete and combinatorial geometry.

Paper Submission

Electronic submissions are preferred, but authors may instead mail 8 copies of an extended abstract to arrive by **December 5, 2002** to either of the two Program Co-Chairs

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Important Dates

Thu, December 5, 2002	Papers due
Sat, February 15, 2003	Notification of acceptance or rejection of papers
Sat, March 15, 2003	Camera-ready papers due
June 8-10, 2003	Symposium

Submission Guidelines

Papers should be submitted in the form of an extended abstract, which begins with the title of the paper, each author's name, affiliation, and e-mail address, followed by a succinct statement of the problems and goals that are considered in the paper, the main results achieved, the significance of the work in the context of previous research, and a comparison to past research. The abstract should provide sufficient detail to allow the program committee to evaluate the validity, quality, and relevance of the contribution. The entire extended abstract should not exceed 10 pages, using 11 point or larger font and with at least one-inch margins all around. If the authors consider it absolutely essential to include additional technical details that do not fit into 10 pages, these details may be added in a clearly marked appendix that should appear after the body of the paper and the references; this appendix will not be regarded as a part of the submission and will be considered only at the program committee's discretion.

Abstracts in hard copy must be received by **December 5, 2002**. Abstracts in electronic form are due by **December 5, 5:00 PM EST**; for further details please visit the conference webpage, <http://www.umd.edu/areas/Theory/socg03>.

These are **firm** deadlines; late submissions will not be considered. Authors will be notified of acceptance or rejection by February 15, 2003. A full version of each contribution in final form will be due by **March 15, 2003** for inclusion in the proceedings.

Best Student Paper Award

A prize will be given to the author(s) of the best student-authored paper. The program committee may decline to make the award, or may split it among more than one paper. A paper is eligible if all of its authors are full-time students at the time of submission. This must be indicated during the electronic submission process, or, for hard copy submissions, in the cover letter.

Conference Chair

Steve Fortune (Bell Labs)

Program Committee

Mark de Berg, co-chair (TU Eindhoven)	Matthew Katz (Ben-Gurion University)
Prosenjit Bose (Carleton University)	Joe Mitchell (Stony Brook University)
Erik Demaine (MIT)	David Mount, co-chair (University of Maryland)
Tamal Dey (The Ohio State University)	Takeshi Tokuyama (Tohoku University)
Olivier Devillers (INRIA Sophia Antipolis)	Gert Vegter (University of Groningen)
Leo Guibas (Stanford University)	Emo Welzl (ETH Zürich)

Call for Videos and Multimedia

Videos are sought for the 12th Annual Video Review of Computational Geometry. This video review showcases the use of visualization in computational geometry for exposition and education, as an interface and a debugging tool in software development, and for the visual exploration of geometry in research. Algorithm animations, visual explanations of structural theorems, descriptions of applications of computational geometry, and demonstrations of software systems are all appropriate. Videos that accompany papers submitted to the technical program committee are encouraged.

This year the video review is experimenting with interpreting “video” broadly as any form of multimedia that can be rendered visually over time. In addition to the standard notion of videos (moving picture and sound), we allow submissions of PowerPoint animations, Java applets, and limited forms of other computed programs that generate video. These programs must have a “demo mode” that requires no interaction (after e.g. pressing a “demo” button) and demonstrates the program automatically. Audio can be generated by the program itself (e.g., PowerPoint animations can have a voice-over), or specified by a separate track. We prefer that such submissions are accompanied by standard videos, but when such preparation is difficult for the authors, the video rendering will be prepared by the video committee. All of these nonstandard arrangements must be coordinated with the video chair at least two weeks prior to submission.

Accepted videos will be collected onto a DVD and distributed to attendees of the conference. The conference proceedings will include a submitted one- or two-page textual description of each video. In addition, authors will have the opportunity to give short presentations about accepted videos, how they were made, and brief background. These presentations will be interleaved with the showing of the videos during a video review session at the conference.

Important Dates

Fri, February 7, 2003	Video submissions due
Fri, February 21, 2003	Notification of acceptance or rejection of videos
Sat, March 15, 2003	Video abstracts due
Fri, April 4, 2003	Final versions of videos due
June 8-10, 2003	Symposium

Video Submission

Submissions are due by **February 7, 2003**. We strongly encourage electronic submission of videos. Electronic submissions should be in MPEG-2 format, although other arrangements can be made with the video chair. Specific requirements on encoding, instructions for preparing submissions, and methods of submission are being detailed on the following webpage:

http://theory.lcs.mit.edu/~edemaine/SoCG2003_multimedia/

Arrangements for nonelectronic submissions must be made at least two weeks prior to the deadline with the video chair.

Each submission must be playable in at most eight minutes, and is preferred to be three to five minutes long. The submission must be accompanied by a one- or two-page description of the

material shown in the video, and where applicable, the techniques used in the implementation. References to additional material describing the contents of the videos, such as accompanying papers, are encouraged. Please format the descriptions following the guidelines for ACM proceedings. The descriptions should be submitted electronically by e-mailing a PostScript or PDF file to the video chair. If electronic submission is impossible, authors should mail seven hardcopies of the description to the video chair:

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Notification

Authors will be notified of acceptance or rejection, and given reviewers' comments by February 21, 2003. For each accepted video, the final version of the textual description is due by **March 15, 2003** for inclusion in the proceedings. Final versions of accepted videos are due by **April 4, 2003**.

Video Program Committee

Erik Demaine, chair (MIT)
Fredo Durand (MIT)
Steven Gortler (Harvard University)
Piotr Indyk (MIT)
Diane Souvaine (Tufts University)
Seth Teller (MIT)
Shang-Hua Teng (Boston University)