New! To strengthen and promote research on practical aspects of computational geometry and topology, as well as connections to other fields, SoCG 2026 introduces a new track that specifically focuses on these aspects, such as implementation, engineering, experimentation, and applications.

Call for Papers — The 42nd International Symposium of Computational Geometry (SoCG 2026), June 2–5, 2026

The 42nd International Symposium on Computational Geometry (SoCG 2026) is planned to be held in New Brunswick, NJ, USA, June 2–5, 2026, as part of the Computational Geometry (CG) Week. We invite high quality submissions that describe original research on the theory and practice of computational problems in a geometric and/or topological setting. Topics of interest include, but are not limited to:

- Design, analysis, and implementation of geometric algorithms and data structures;
- Computational complexity of geometric problems;
- Implementation and experimental evaluation of geometric algorithms and heuristics, including mathematical, numerical, and algebraic aspects;
- Discrete and combinatorial geometry;
- Computational topology, topological data analysis, and topological combinatorics;
- Applications of computational geometry or topology in any field.

Two Tracks: To help ensure that each contribution is evaluated according to its merits, the submission and review process is organized in two tracks: Track T (Theory) and Track P (Practice).

Important Dates:

- November 25, 2025 (Tuesday): Abstracts and paper registration due (23:59 anywhere on Earth)
- December 2, 2025 (Tuesday): Papers due (23:59 anywhere on Earth)
- February 5, 2026 (Thursday): Notification of acceptance/rejection
- March 24, 2026 (Tuesday): Final versions of accepted papers due
- June 2–5, 2026: Symposium

Useful Links:

- SoCG 2026 Conference Webpage: `https://cgweek26.computational-geometry.org/`
- SoCG 2026 HotCRP Submission Webpage: `https://socg26.hotcrp.com/`

1 Code of Conduct

SoCG is dedicated to providing an environment that is free from harassment, bullying, discrimination, and retaliation for all participants. CG Week including SoCG is organized as an event of the CG Society since 2025. All members of the Society are bound by its Code of Conduct. Only members of the Society can give a presentation and hence at least one author of each accepted paper must become a member of the Society. Society membership is free of cost and open to everyone with a connection to the Computational Geometry community.

2 Submission Guidelines

When writing or evaluating a SoCG paper, it is important to keep in mind that there are different types of contributions, each with their own strengths. To ensure that each submission is evaluated on its own merits, authors and reviewers need to identify the main strengths of a submission. To help with this task, the authors are asked to provide some additional information about their paper in the submission system, as detailed below.

2.1 Tracks

If the main contribution is about theoretical aspects of computational geometry or topology, the paper should be submitted to Track T (Theory). If the main contribution is about practical aspects of computational geometry or topology, the paper should be submitted to Track P (Practice). If a paper makes relevant contributions to both theory and practice of computational geometry or topology, this should be indicated as part of the submission. There will be five options: P, P(T), PT, T(P), T. For example, T(P) indicates that the main focus of the paper is theory and a minor focus is practice. There are no quotas for the number and ratio of papers accepted in each track.

2.2 Paper Types

To further differentiate the different types of contributions, we distinguish four possible paper types. Reviewers should take into account these paper types together with their associated evaluation criteria when they evaluate a paper. A submission can be labeled with *several paper types*, and there are no quotas for the number and ratio of papers accepted of each paper type.

Mathematical Foundations: A typical paper contains theorems and proofs describing new results in discrete or combinatorial geometry, discrete differential geometry or topology, or in topological combinatorics. The paper will primarily be evaluated on the connection of the problem studied to computational geometry and topology, the importance of the results, the technical depth, the elegance of the solution, and the potential future impact on algorithm development.

Algorithmic Complexity: A typical paper contains algorithms, data structures, theorems, proofs, or lower bound constructions describing new results on computational geometry or topology problems. The paper will primarily be evaluated on the relevance and importance of the problem studied, its technical depth, the elegance of the solution, and the potential future impact of the results or the proposed new methods and techniques.

Implementation & Engineering: A typical paper addresses practical aspects of solving computational geometry and/or topology problems, such as algorithm implementation and engineering, constants vs. asymptotics, exact, approximate, or algebraic computation, robustness, or heuristics. The paper will primarily be evaluated on the (theoretical and practical) relevance and importance of the problem, the clarity and completeness of the exposition, the quality and expected impact of the results, the simplicity and elegance of the solution, and the completeness and soundness of the validation.

Experimentation: A typical paper contains experimental evaluations of data related to computational geometry and/or topology problems (potentially arising from external fields), such as a comparison of competing algorithmic approaches, the design and generation of benchmark data, or cognitive studies on user interaction. The paper will primarily be evaluated on the relevance and importance of the problem, the clarity of the hypotheses, the soundness and completeness of the experiments and evaluation, and the expected impact of the results.

2.3 Interdisciplinary Research

We are excited to discover connections between computational geometry and topology and other fields and embrace submissions that explore such connections. Connections can go both ways, for instance, using tools or inspiration from another field to obtain results in computational geometry or using tools from computational topology to obtain results in another field or application domain. In such a case, the novelty, relevance, and impact of the connection on both sides will be considered as part of the evaluation. Evaluating these aspects for the other domain can be challenging, as it is likely that there are no domain experts on the PC. Thus, the authors should explain the connection between computational geometry and/or topology and the other domain in sufficient detail and clarity within the paper, including any relevant terminology and modeling aspects. It then falls upon the reviewers to make a serious attempt to evaluate these aspects, including—wherever possible—to obtain input from domain experts.

3 Double Blind and PC submissions

SoCG will employ a lightweight double-blind reviewing process, and will allow PC members (other than the PC chairs) to submit to the conference. Submissions should not reveal the identity of the authors in any way. In particular, authors' names, affiliations, funding information, and email addresses should not appear in the submission. Authors should ensure that any references to their own related work is in the third person (e.g., not "We build on our previous work ..." but rather "We build on the work of ..."). Particular care needs to be taken if there is any accompanying software or data, which needs to be linked anonymously (for example, via a DropBox anonymous folder or Anonymous GitHub, perhaps with synthetic data if the real data is not anonymized). Upon registering a submission, the authors will declare conflicts of interest with PC members, as well as listing email address or domain level conflicts (e.g. "Amir Nayyeri (Oregon State University)", "All (University of Illinois at Urbana Champaign)") of other professional or personal conflicts. This includes past advisors and students, people with the same affiliation, and any recent/frequent coauthors and collaborators. Please refer to Section 1 of the Reviewing Guidelines for a detailed discussion of possible conflicts of interest. The purpose of lightweight double-blind reviewing is to help PC members and external reviewers come to an initial judgment about the paper without bias, not to make it impossible for them to discover the authors if they were to try. Authors should feel free to disseminate their ideas or draft versions of their paper as they normally would. For example, authors may post drafts of their papers on the web, submit them to arXiv, and give talks on their research ideas. We encourage authors with further questions on double-blind reviewing to contact the PC chairs, or to see the more detailed discussion in the proposal that preceded the vote to move to double blind.

4 Format

Submissions must be formatted in accordance with the LIPIcs proceedings guidelines. Authors are required to use the LaTeX class file socg-lipics-v2021.cls (V0.9, Sep 19, 2022), with the option "anonymous"; note that the class file is a wrapper around the standard LIPIcs class. The LIPIcs style and instructions are available here; the SoCG class file is available here, and instructions on how to use it are available here. Submissions must not exceed 500 lines, excluding front matter (title), references, and a clearly marked appendix (further described below), but including all other lines (in abstract, algorithms, tables, captions, etc.). The class files provide line counting which should be accurate in most cases. Authors should refrain from putting excessive amounts of text in parts in which lines are not counted automatically. If authors need constructs that contain uncounted lines of text, they should compensate for this by reducing the final line count accordingly. It is the sole responsibility of the authors not to exceed 500 lines even if some lines are not counted automatically.

Contents of the submission. Papers should be submitted in the form of an extended abstract, which begins with the title of the paper, 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 problem should be clearly motivated, for instance, by curiosity, previous work, or

applications. 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. In addition, authors are asked to avoid "et al." in citations in favor of an equal mention of all authors' surnames. For instance, if the number of authors is large, consider writing "The authors in [#] show" instead of "A et al. [#] show".

Appendix and supplemental data. All results must be reproducible, that is, all details needed to verify the results must be provided. For a theorem, there must be a complete proof that a reviewer could verify. For an implementation, there must be a package with the full source code and test data or generators that a reviewer could build and run to reproduce the results. For an experiment, the setup, conduct, and evaluation must be described in complete detail, so that a reviewer could go and replicate it. Even though the limited timeframe for reviewing may not allow to fully review all details, it is upon the authors to make time the only limiting factor. Supporting material, such as proofs of theoretical claims, source code of implementations, and experimental details, that do not fit in the 500-line limit should be provided in an appendix or as supplemental data. The authors should include in the main part specific pointers to the relevant locations in the appendix or to the supplemental data. Additional material will be published, but not as part of the proceedings. Thus, the paper without the appendix and supplemental data should be able to stand on its own.

Previous or simultaneous submissions. 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. In particular, submissions of papers that have appeared or will be submitted to EuroCG are allowed, since EuroCG does not publish formal proceedings, while submissions of papers that have appeared in CCCG are not allowed. Results that have already been accepted (with or without revision) for publication in a journal at the time of their submission to the symposium are not allowed. A paper submitted to a journal but not yet accepted for publication can be submitted to the symposium. In such cases, the authors will be asked to identify the status of the journal submission as part of their SoCG paper submission.

Strict guidelines. Submissions deviating from the above guidelines risk being rejected without further consideration.

Guidelines for reviewers. The guidelines for reviewers are available here.

5 Accepted Papers

Format. Final proceedings versions of accepted papers must respect the same formatting constraints as the submissions (LIPIcs proceedings format with socg-lipics-v2021; 500-line limit, excluding front matter and references), but must not comprise any appendix. All results must be reproducible. If any supporting material (including complete proofs of theoretical claims, source code and test data of implementations, and/or experimental details and data) does not fit in the specified limit, then it must be made persistently publicly available elsewhere and referenced in the conference version. For instance, a full version of the paper can be published on the arXiv, or supplemental data can be published in an organization's data archive, on Zenodo, or on the Software Heritage Archive, with a persistent DOI. An author's webpage or a GitHub repository are *not* considered persistent storage facilities.

Presentation. At least one author of each accepted paper is expected to attend the symposium (either in person or online) and present the paper (approximately 20 minutes). Every presenting author must be a member of the CG Society.

Awards:

- **Best paper award**: An accepted paper may be selected as the best paper. All papers are eligible.
- **Best student paper award**: An accepted paper may be selected as the best student paper. A paper is eligible if all authors are students at the time of submission. This must be indicated in the submission process. There is a box provided for this purpose on the submission server.
- **Best student presentation award**: Based on the feedback from the audience, a presentation during the symposium by a student may be selected as the best student presentation. For more details, check the guidelines.
- **Outstanding reviewer award**: An external reviewer may be selected to receive an "Outstanding Reviewer Award".

In exceptional cases, each of these awards may be granted to more than one paper/presentation/reviewer. See here for award recipients of previous years.

Invited papers and special issues. Authors of the best paper may be invited to submit an extended version of their paper to the Journal of the ACM, and authors of one (or more) highly ranked papers may be invited to submit their full paper to the journal TheoretiCS. Authors of a selection of accepted papers from the symposium will be invited to submit extended versions of their papers to special issues of Discrete & Computational Geometry and Journal of Computational Geometry.

6 Program Committee

Track P

- Chao Chen (Stony Brook)
- Otfried Cheong (Scalgo)
- Andreas Fabri (GeometryFactory)
- Marc Glisse (Inria Saclay)
- John Hershberger (Siemens EDA)
- Michael Hoffmann (ETH Zürich, co-chair)
- Phillip Keldenich (TU Braunschweig)
- Dmitriy Morozov (Lawrence Berkeley National Laboratory)
- Sabine Storandt (University of Konstanz)
- Hubert Wagner (University of Florida)
- Jules Wulms (TU Eindhoven)

Track T

- Eyal Ackerman (University of Haifa at Oranim)
- Hee-Kap Ahn (POSTECH, co-chair)
- Pankaj Agarwal (Duke University)
- Martin Balko (Charles University)
- Huck Bennett (University of Colorado Boulder)

- Sarita de Berg (IT University of Copenhagen)
- Therese Biedl (University of Waterloo)
- Kevin Buchin (TU Dortmund)
- Sergio Cabello (University of Ljubljana)
- Jean Cardinal (Université Libre de Bruxelles)
- Mathieu Carrière (Inria Côte d'Azur)
- Éric Colin de Verdière (CNRS, LIGM, Marne-la-Vallée)
- Anne Driemel (Bonn University)
- Herbert Edelsbrunner (IST Austria)
- Arnold Filtser (Bar Ilan University)
- Xavier Goaoc (Université de Lorraine)
- Kristóf Huszár (TU Graz)
- Woojin Kim (KAIST)
- Sándor Kisfaludi-Bak (Aalto University)
- Hung Le (UMass Amherst)
- Amir Nayyeri (Oregon State University, co-chair)
- Yakov Nekrich (Michigan Technological University)
- Sharath Raghvendra (NC State)
- Paweł Rzążewski (Warsaw University of Technology)
- Frank Staals (Utrecht University)
- Primož Škraba (Queen Mary University of London)
- Shin-ichi Tanigawa (University of Tokyo)
- Katharine Turner (Australian National University)
- Carola Wenk (Tulane University)
- Sampson Wong (University of Copenhagen)
- Meirav Zehavi (Ben Gurion Univeristy)