

## Call for Papers

# FOCS 2024

October 27-30, 2024

Chicago, IL, USA

**Paper Submission Deadline: Monday, April 4, 2024,  
7:59pm EST.**

The 65th Annual Symposium on Foundations of Computer Science (FOCS 2024), sponsored by the IEEE Computer Society Technical Committee on Mathematical Foundations of Computing, will be held in **Chicago, IL, USA, October 27 — 30, 2024**. Information about previous conferences can be found at the [FOCS Conference Archive](#).

Papers presenting new and original research on theory of computation are sought. Typical but not exclusive topics of interest include: algorithmic coding theory, algebraic computation, algorithmic graph theory, algorithmic game theory, algorithms and data structures, analysis of Boolean functions, approximation algorithms, average-case complexity, computational applications of logic, combinatorics, computational complexity, communication complexity, circuit complexity, combinatorial optimization, computational game theory, computational geometry, computational learning theory, continuous optimization, cryptography, foundations of machine learning, online algorithms, optimization, parallel and distributed algorithms, parameterized algorithms, randomized algorithms, sublinear algorithms, streaming algorithms, quantum computing, pseudorandomness and derandomization, foundations of fairness and privacy, and theoretical aspects of areas such as networks, information retrieval, computational biology, and databases. Papers that broaden the reach of the theory of computing, or raise important problems that can benefit from theoretical investigation and analysis, are encouraged.

Please submit using this link: <https://focs24.hotcrp.com/>

**Submission format:** Submissions should start with a title page consisting of the title of the paper, **no author information (see below)**, and an abstract of a few paragraphs summarizing the paper's contributions. There is no page limit and authors are

encouraged to use the "full version" of their paper as the submission. Each submission should contain within the initial ten pages following the title page a clear presentation of the merits of the paper, including a discussion of the paper's importance within the context of prior work and a description of the key technical and conceptual ideas used to achieve its main claims. This part of the submission should be addressed to a broad spectrum of theoretical computer science researchers, not solely to experts in the subarea. Proofs must be provided that can enable the main mathematical claims of the paper to be fully verified.

Although there is no bound on the length of a submission, material other than the abstract, table of contents, and the first ten pages will be read at the committee's discretion. Authors are encouraged to put the references at the very end of the submission. The submission should be typeset using 11-point or larger fonts, in a single-column, single-space (between lines) format with ample spacing throughout and 1-inch margins all around, on letter-size (8 1/2 x 11 inch) paper. Submissions deviating significantly from these guidelines risk rejection without consideration of their merits.

**FOCS 2024 will use double-blind reviewing**, and as such, submissions should not reveal the identity of the authors in any way. In particular, authors' names, affiliations, and email addresses should not appear at the beginning or in the body of the submission. Authors should not include obvious references that reveal their own identity, and should ensure that any references to their own related work are in the third person (e.g., not "We build on our previous work..." but rather "We build on the work of...").

The purpose of this double-blind process is to help PC members and external reviewers come to an initial judgment about the paper without bias, and not to make it impossible for them to discover who the authors are if they were to try. (In particular, to manage Conflicts Of Interests, author information will be available to the PC Chair, as well as to a small set of COI-Management PC Members on an as-needed basis.) Nothing should be done in the name of anonymity that weakens the submission or makes the job of reviewing the paper more difficult. In particular, important references should not be omitted or anonymized. In addition, 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.

All submissions will be treated as confidential, and will only be disclosed to the committee and their chosen sub-referees. In addition, the program committee may consult with journal editors and program chairs of other conferences about controversial

issues such as parallel submissions.

**PC Member Submissions:** Submissions authored or coauthored by PC members (other than the PC chair) are allowed.

**Recommended Best practices for References:** Authors are encouraged to include hyperlink cross-referencing for bibliographic entries, theorems, sections, and so on, using for example the `hyperref`, `cleverref`, or `varioref` packages. If helpful, a table of contents may be added on a page immediately following the title page; this will not count towards the first ten pages.

Authors are asked to avoid "et al." in citations in favor of an equal mention of all authors' surnames. If the number of authors is large, consider writing "`\cite{XYZ} show...`" instead of "X et al. show". Bibliographic references should preferably be alphanumeric (e.g., the first letters of the authors' surnames, or at least the first three followed by +) followed by year of publication, instead of just a numerical reference. If using BibTeX, this can be accomplished by using `\bibliographystyle{alpha}` or `\bibliographystyle{alphauri}`.

**Conflict of Interest Policy:** The submission process will include declaration of conflicts of interest (COI), to help manage the double-blind review process. This declared COI information can only be seen by the program committee chair and thus cannot be used by the rest of the program committee to deanonymize authors. (Notwithstanding, the small set of COI-Management PC Members may see some of this information when assisting in managing COIs.) FOCS 2024 will use the following Conflict of Interest Policy, which combines aspects suggested by SafeToC (see [here](#)) and the ACM Conflict of Interest [policy](#). Authors should limit their COI declaration to the following categories:

1. Family member or close friend.
2. Ph.D. advisor or advisee (no time limit), or postdoctoral or undergraduate mentor or mentee within the past five years.
3. Person with the same affiliation.
4. Person involved in an alleged incident of harassment. (It is not required that the incident be reported.)
5. Reviewer owes the author a favor (e.g., recently requested a reference letter).
6. Frequent/recent collaborator, or recipients of joint funding (within the last 2 years or reasonably expected within the next year) who you believe cannot objectively review your work.

If an author believes that they have a valid reason for a conflict of interest not listed above, then they can contact the PC chair or any [ToC advocate](#) affiliated with this conference directly. Note that if the program chair has reason to doubt the validity of the

claim of conflict of interest, then they may request that a ToC advocate confidentially verify the reason for the conflict. Falsely declared conflicts (i.e., ones that do not satisfy one of the listed reasons) risk rejection without consideration of merit. If authors are uncertain, they are encouraged to email the PC chair or a ToC advocate.

**Submission Instructions:** Authors are required to submit their papers electronically, in PDF (without security restrictions on copying or printing).

The [submission server](#) is scheduled to open on **March 1, 2024**.

It is expected that authors of accepted papers will make their full papers, with proofs, publicly available on arXiv, ECCC, or a similar preprint service by the camera-ready deadline.

**Prior and Simultaneous Submissions:** The conference will follow SIGACT's policy on prior publication and simultaneous submissions. Work that has been previously published in another conference proceedings or journal, or which is scheduled for publication prior to December 2024, will not be considered for acceptance at FOCS 2024. The only exception to this policy are prior or simultaneous publications appearing in the Science and Nature journals. SIGACT policy does not allow simultaneous submissions of the same (or essentially the same) material to another conference with published proceedings. The program committee may consult with program chairs of other (past or future) conferences to find out about closely related submissions.

**Presentation of Accepted Papers:** One author of each accepted paper will be expected to register and present the work in the form of a talk at the conference. Authors are expected to contact the program chair before submission in case it is anticipated that a strong reason (e.g., international travel restrictions) would prevent all authors from attending the conference.

## **Dates and other relevant information:**

**Paper submission deadline:** Thursday, April 4 , 2024, 7:59pm EST.

**Notification date:** by email on or before July 1, 2024.

**Camera-ready versions of accepted papers:** A camera-ready copy of each accepted paper is required by September 1, 2024.

**Best Paper Award:** The program committee may designate up to three papers accepted to the conference as Best Papers. All submissions are automatically eligible. In addition to the standard COI-avoidance, the final designation process will be

conducted by the subset of PC Members with no submission to the conference. Rules for the award can be found at [https://www.sigact.org/prizes/best\\_paper.html](https://www.sigact.org/prizes/best_paper.html).

**Machtey Award:** The Machtey award will be given to the best paper or papers written solely by one or more students. An abstract is eligible if all authors are full-time students at the time of submission. This should be indicated at the time of submission.

The committee may decide to split the awards between multiple papers, or to decline to make an award.

**Student Travel Awards:** More information on the award process will be posted later on.

## Program Committee:

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