

2023 USENIX Annual Technical Conference

July 10–12, 2023, Boston, MA, USA

Sponsored by USENIX, the Advanced Computing Systems Association



The 2023 USENIX Annual Technical Conference will be co-located with the 17th USENIX Symposium on Operating Systems Design and Implementation (OSDI '23) and take place on July 10–12, 2023, at the Sheraton Boston in Boston, MA, USA.

Important Dates

- Abstract registrations due: **Thursday, January 5, 2023, 11:59 pm UTC**
- Submissions due: **Thursday, January 12, 2023, 11:59 pm UTC**
- Beginning of authors' response period: **Tuesday, April 11, 2023**
- Authors' response due: **Thursday, April 13, 2023, 11:59 pm UTC**
- Notification to authors: **Friday, April 28, 2023**
- Final paper files due: **Thursday, June 8, 2023**

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Overview

The 2023 USENIX Annual Technical Conference seeks original, high-quality submissions that improve and further the knowledge of computing systems, with an emphasis on implementations and experimental results. We are interested in systems of all scales, from small embedded mobile devices to data centers and clouds. The scope of USENIX ATC covers all practical aspects related to computer systems, including but not limited to: operating systems; runtime systems; parallel and distributed systems; storage; networking; security and privacy; virtualization; software-hardware interactions; performance evaluation and workload characterization; reliability, availability, and scalability; energy and power management; and bug-finding, tracing, analyzing, and troubleshooting.

We value submissions more highly if they are accompanied by clearly defined artifacts not previously available, including traces, original data, source code, or tools developed as part of the submitted work. We particularly encourage new ideas and approaches.

Submissions must contain original unpublished material that is not under review at any other forum, including journals, conferences, and workshops with proceedings. They will be judged on relevance, novelty, technical merit, correctness, and clarity. An idea or a design that the PC deems flawed can be grounds for rejection.

USENIX ATC '23 will employ double-blind reviewing. Papers that are not properly anonymized may be rejected without review.

Papers need to be registered and their abstracts submitted by the abstract registration deadline. Papers with an empty abstract at the time of the abstract registration deadline will be rejected.

Submission Type: Full vs. Short

USENIX ATC accepts both full and short submissions. Full submissions must not exceed 11 pages, and short submissions must not exceed 5 pages. In both cases, the page limit excludes references and includes all text, figures, tables, footnotes, etc. Both types are reviewed to the same standards and differ primarily in scope. A short paper presents a complete idea that is properly evaluated, just like in a full-length submission. For further details, see the Submission Instructions section below.

Deployed Systems Track

USENIX ATC '23 solicits papers that describe the design, implementation, analysis, and experience with real-world deployment of systems and networks. Papers for the deployed systems track (occasionally referred to as the operational systems track in other USENIX conferences) need not present new ideas or results to be accepted but should convey practical insights. Note that the rules regarding submission and anonymization are different for deployed systems track papers (see the submission instructions for more details). The final program will explicitly identify papers accepted to the deployed systems track to distinguish them from papers accepted to the regular track.

Early Rejection Notifications

USENIX ATC '23 will conduct its reviews in multiple rounds. As some papers may be rejected in an early round, USENIX ATC '23 will send early rejection notifications to such authors, at least a month ahead of the date that all remaining notifications are sent (acceptances and additional rejections).

Authors' Response Period

USENIX ATC '23 will provide an opportunity for authors of papers that are not early rejected to respond to the reviews prior to the final consideration of the submissions at the program committee meeting according to the schedule detailed above.

Confidentiality

All submissions will be treated as confidential prior to publication on the USENIX ATC '23 website. Rejected submissions will be permanently treated as confidential.

Questions?

Please direct any questions to the program co-chairs at atc23chairs@usenix.org or to the USENIX office at submissionspolicy@usenix.org.

Submission Instructions

Process Overview

A good submission will typically: motivate a significant problem; propose a practical solution or approach that makes sense; demonstrate the pros and cons of the latter using sound experimental and statistical evaluation methods; disclose what has and has not been implemented; articulate the new contributions beyond previous work; and refrain from over-claiming, focusing the abstract and introduction sections primarily on the difference between the new proposal and what is already available. Submissions will be judged on relevance, novelty, technical merit, correctness, and clarity. An idea or design that the PC deems flawed can be grounds for rejection.

Submissions are required to avoid committing benchmarking crimes (<https://gernot-heiser.org/benchmarking-crimes.html>).

Authors of work previously submitted to ATC or another conference are encouraged to describe in a separate note in the submission form the changes since the previous submission(s). This description helps reviewers who may have reviewed a previous draft of the work to appreciate any improvements to currently submitted work. The description will only be visible to the reviewers after they have submitted their reviews.

Papers need to be registered and their abstracts submitted by the abstract registration deadline. **Papers with an empty abstract at the time of abstract registration will be rejected.**

Papers must be submitted before the aforementioned submission deadline via the USENIX ATC '23 submission site, linked from the ATC '23 Call for Papers web page. Submissions must be in PDF format. No extensions will be given. Submissions must strictly adhere to the policies specified below. By submitting, you agree that if the paper is accepted, at least one of the authors will attend the conference. Submissions accompanied by nondisclosure agreement forms will not be considered.

Originality

Submissions must contain original unpublished material that is not under review at any other forum, including journals, conferences, and workshops with proceedings. Submissions that extend your own previous work—in a significant way—are welcome, but you must explain the differences between your current USENIX ATC submission and your prior work. You should also relate your current USENIX ATC submission to relevant submissions of your own that are simultaneously under review for this or other venues. The **Anonymizing** section discusses how to do so while maintaining anonymity.

Simultaneous submission of the same work to multiple venues, submission of previously published work, or other violations of

the above policies constitute plagiarism, dishonesty, or fraud. USENIX prohibits these practices and may take action against authors who have committed them; see the USENIX Conference Submissions Policy (<https://www.usenix.org/conferences/author-resources/submissions-policy>) for additional details.

Submission Type: Full vs. Short

Short submissions are limited to roughly half the space of full-length submissions. Both types are reviewed to the same standards. A short paper is not like a workshop “position” paper—it presents a complete idea that does not require full length to be appreciated. The idea should be concisely formulated and evaluated, and conclusions should be drawn from it. The program committee may, in rare cases, decide to accept a full submission on the condition that it is cut down to fewer pages. Short papers will be included in the proceedings and presented at the conference like full papers during a slightly shorter time slot.

Formatting

Full submissions must not exceed 11 pages, and short submissions must not exceed 5 pages. These page limits include all text, figures, tables, footnotes, etc. Submissions may include as many additional pages as needed for references and for supplementary material in appendices. Because references do not count against the page limit, they should not be formatted using a smaller font, and the names of all co-authors should be specified. The paper should stand alone without the supplementary material, but authors may use this supplementary material space for content that may be of interest to some readers but is peripheral to the main technical contributions of the paper. Note that members of the program committee are free to not read this material when reviewing the paper.

Use US letter paper size (8.5" x 11" or 216 mm x 279 mm), with all text and figures fitting inside a 7" x 9" (178 mm x 229 mm) block centered on the page, using two columns separated by 0.33" (8 mm) of whitespace.

Use a 10-point font (typeface Times Roman, Linux Libertine, etc.) on 12-point (single-spaced) leading. Graphs and figures can use colors but should be readable when printed in monochrome, without magnification. All pages should be numbered, and references within the paper should be hyperlinked. Labels, captions, and other text in figures, graphs, and tables must use reasonable font sizes that, as printed, do not require extra magnification to be legible. Submissions that violate any of these restrictions will not be reviewed. No extensions will be given for reformatting.

LaTeX style files and Word templates are available on the USENIX templates page (<https://www.usenix.org/conferences/author-resources/paper-templates>).

Papers not meeting these requirements may be rejected without a review.

Anonymizing

The USENIX ATC '23 double-blind review process keeps author identities concealed from reviewers and vice versa. You must therefore make a good-faith attempt to anonymize your submissions by avoiding identifying yourself or your institution, either explicitly or by implication, e.g., through references, acknowledgments, online repositories that are part of the submission, or direct interaction with committee members. Do not say “reference removed for blind review.” When it is necessary to cite your own studies, cite them as written by a third party (preferable).

Any of your workshop papers that are being extended by your current USENIX ATC submission should be uploaded as supplemental material that will only be directly accessible to the PC chairs. The workshop papers must be referenced from the paper, but the reference can be anonymized.

Related submissions of your own that are simultaneously under review or awaiting publication at other venues should be handled using the same approach.

Publication as a technical report or in an online repository does not constitute a violation of this policy because those works are not peer-reviewed. However, the title of the paper and the name of the system must not be identical in the submitted paper and the technical report.

Papers that are not properly anonymized may be rejected without review.

Public disclosure of excerpts from submitted papers and/or reviews (e.g., those received during the rebuttal process) prior to the announcement of official decisions constitutes a violation of the anonymity policy. All questions or comments about the reviews should be sent exclusively to atc23chairs@usenix.org.

Deployed Systems Track

Submissions in the Deployed Systems Track describe the design, implementation, analysis, and experience with real-world, deployed systems and networks. We encourage submission of papers that disprove or strengthen existing assumptions, deepen the understanding of existing problems, and validate known techniques at scales or environments in which they were never used or tested before. Papers for the deployed systems track need not present new ideas or results to be accepted; indeed, new ideas or results will not influence whether the papers are accepted. However, these papers should convey some practical insights.

The rules regarding submission and anonymization are different for deployed systems track submissions. Since the evaluation requires understanding the real-world use of the system, papers in this track will be reviewed in a more limited double-blind process. Authors' names should be withheld, as usual. However, in contrast to other papers, authors need not anonymize the content of their submission in any other way—they may keep company names, links, real system names, etc. as appropriate for the paper. Please note that you cannot switch tracks for your paper after submission since the submission rules differ.

Authors should indicate on the title page of the paper and in the submission form that they are submitting to this track. Authors should also fill in a box in the submission form briefly indicating why the paper is appropriate for this track. The final program will explicitly identify papers accepted to the deployed systems track to distinguish them from papers accepted to the regular track.

Ethics & Vulnerabilities Disclosure

Authors must, as part of the submission process, attest that their work complies with all applicable ethical standards of their home institution(s), including, but not limited to privacy policies and policies on experiments involving humans. Note that submitting research for approval by one's institution's ethics review body is necessary, but not sufficient—in cases where the PC has concerns about the ethics of the work in a submission, the PC will have its own discussion of the ethics of that work. The PC's review process may examine the ethical soundness of the paper just as it examines the technical soundness.

Papers describing experiments with users or user data (e.g., network traffic, passwords, social media information), should follow the basic principles of ethical research, e.g., beneficence (maximizing the benefits to an individual or to society while minimizing harm to the individual), minimal risk (appropriateness of the risk versus benefit ratio), voluntary consent, respect for privacy, and limited deception. When appropriate, authors are encouraged to include a subsection describing these issues. Authors may want to consult the Menlo Report (https://www.caida.org/publications/papers/2012/menlo_report_actual_formatted/) for further information on ethical principles, or the Allman/Paxson IMC '07 paper (<http://conferences.sigcomm.org/imc/2007/papers/imc76.pdf>) for guidance on ethical data sharing.

If the submission deals with vulnerabilities (e.g., software vulnerabilities in a given program or design weaknesses in a hardware system), the authors need to discuss in detail the steps they have already taken or plan to take to address these vulnerabilities (e.g., by disclosing vulnerabilities to the vendors). The same applies if the submission deals with personally identifiable information (PII) or other kinds of sensitive data. If a paper raises significant ethical and legal concerns, it might be rejected based on these concerns.

Artifact Description

To support the review process, authors are required to provide a description of the artifacts used in the submission. The information needs to be provided as part of the HotCRP submission form, and can include details such as the hardware platform used (e.g., CPU, motherboard, memory), the software used (OS, kernel, applications and their versions), the setup used for the experiments (e.g., connectivity, vantage points) and other relevant details. The information entered into HotCRP may be redundant with the details in the paper, but it helps the reviewers to see the details in one place.

Authors are encouraged to indicate in their papers whether artifacts are open (in the supplemental materials or at an external link), will become open following acceptance, or will not be shared.

Declaring and Avoiding Conflicts

When registering a submission, all its co-authors must provide information about conflicts with the USENIX ATC '23 program committee (PC) members. You are conflicted with a member if: (1) you are currently employed at the same institution, have been previously employed at the same institution within the past two years (2021 or later), or are going to begin employment at the same institution; (2) you have a past or present association as thesis advisor or advisee (no time limit); (3) you have collaborated on a project, publication, grant proposal, or editorship within the past two years (2021 or later); or (4) you have spousal or first-degree relative relations.

Do not declare a conflict if you discussed your submission with a PC member before the USENIX ATC '23 PC list was publicized. Do not declare a conflict merely because you wish to avoid a review from a specific committee member; **such unethical behavior may result in immediate rejection**. All conflicts will be reviewed to ensure the integrity of the reviewing process.

Authors and others are prohibited from directly or indirectly communicating with any USENIX ATC '23 PC member about any potentially submitted paper. All inquiries should be made exclusively to atc23chairs@usenix.org. Violations of these guidelines may incur remedies as stipulated in the USENIX Conference Submissions Policy (<https://www.usenix.org/conferences/author-resources/submissions-policy>).

Authors' Response Period

USENIX ATC '23 will provide an opportunity for authors to respond to reviews prior to final consideration of the submissions at the program committee meeting according to the schedule detailed above. Authors must limit their response rebuttal to: (1) correcting factual errors in the reviews; and (2) directly addressing questions posed by reviewers. Rebuttals should be limited to clarifying the submitted work. In particular, rebuttals must not include new experiments or data, nor describe additional work completed since submission, nor make promises of additional work to be performed. Rebuttals are optional. Rebuttals should be limited to no more than 500 words; excessively long rebuttals might result in the paper's rejection.

Accepted Papers

Submissions selected by the program committee will be conditionally accepted, subject to revision and approval by a program committee member acting as a shepherd. Conditionally accepted papers can still be rejected before the final version deadline if the set conditions are not fulfilled. Accepted (long and short) papers will be allowed one additional page in the proceedings. One author of each accepted paper will present the work at the conference in a designated time slot.

By default, all accepted papers will be made available online to registered attendees before the conference. If your accepted paper should not be published prior to the event, please notify production@usenix.org before the final paper deadline. Accepted papers, however, will be made available online to everyone beginning on the first day of the conference.

If the conference registration fee will pose a hardship for the presenter of the accepted paper, please contact the Conference Department at conference@usenix.org. If your paper is accepted and you need an invitation letter to apply for a visa to attend the conference, please email conference@usenix.org as soon as possible. (Visa applications can take at least 30 working days to process; recently, visas have often taken significantly longer.) Please identify yourself as a presenter and include your mailing address in your email.

Questions?

Please direct any questions to the program co-chairs at atc23chairs@usenix.org or to the USENIX office at submissionpolicy@usenix.org.