OSDI '23: 17th USENIX Symposium on Operating Systems Design and Implementation

July 10–12, 2023, Boston, MA, USA

Sponsored by USENIX, the Advanced Computing Systems Association

The 17th USENIX Symposium on Operating Systems Design and Implementation will take place on July 10–12, 2023, at the Sheraton Boston Hotel in Boston, MA, USA.

Important Dates

- Abstract registrations due: **Tuesday, December 6, 2022, 5:59 pm EST (10:59 pm UTC)**
- Complete paper submissions due: **Tuesday, December 13, 2022, 5:59 pm EST (10:59 pm UTC)**

  ### Author Response Period
  - Reviews available: **Monday, March 6, 2023**
  - Author responses due: **Wednesday, March 8, 2023**
- Notification to authors: **Thursday, March 23, 2023**
- Final paper files due: **Thursday, June 1, 2023**

Conference Organizers

Program Co-Chairs
Roxana Geambasu, *Columbia University*
Ed Nightingale, *Apple*

Program Committee
Atul Adya, *Databricks*
Rachit Agarwal, *Cornell University*
Nitin Agrawal, *ThoughtSpot*
Ramnatthan Alagappan, *University of Illinois at Urbana–Champaign*
Jeremy Andrus, *Apple*
Sebastian Angel, *University of Pennsylvania*
Mahesh Balakrishnan, *Confluent*
Adam Belay, *MIT CSAIL*
Emery Berger, *University of Massachusetts Amherst*
Edouard Bugnion, *EPFL*
George Candea, *EPFL*
Kang Chen, *Tsinghua University*
Vijay Chidambaram, *The University of Texas at Austin and VMware Research*
Mosharaf Chowdhury, *University of Michigan*
Byung-Gon Chun, *Seoul National University and FriendliAI*
Asaf Cidon, *Columbia University*
Manuel Costa, *Microsoft Research Cambridge*
Landon Cox, *Microsoft Research*
Natacha Crooks, *University of California, Berkeley*

Jon Crowcroft, *University of Cambridge*
Heming Cui, *University of Hong Kong*
Dilma Da Silva, *Texas A&M University*
Murat Demirbas, *Amazon Web Services*
Ittay Eyal, *Technion—Israel Institute of Technology*
Jason Flinn, *Meta*
Bryan Ford, *EPFL*
Aishwarya Ganesan, *University of Illinois at Urbana–Champaign and VMware Research*
Phillip Gibbons, *Carnegie Mellon University*
Yossi Gilad, *Hebrew University of Jerusalem*
Joseph Gonzalez, *University of California, Berkeley*
Andreas Haeberlen, *University of Pennsylvania*
Steven Hand, *Google*
Tim Harris, *Microsoft*
Wenjun Hu, *Yale University*
Ryan Huang, *Johns Hopkins University*
Rüdiger Kapitza, *FAU Erlangen-Nürnberg*
Brad Karp, *University College London*
Baris Kasikci, *University of Michigan*
Eddie Kohler, *Harvard University*
Mathias Lécuyer, *University of British Columbia*
Philip Levis, *Stanford University*
Amit Levy, *Princeton University*
Jinyang Li, *New York University*
Hyeontaek Lim, *Google*
Wyatt Lloyd, *Princeton University*
Jay Lorch, *Microsoft Research*
Shan Lu, *University of Chicago*
Martin Maas, *Google*
Jonathan Mace, *Max Planck Institute for Software Systems (MPI-SWS)*
Ratul Mahajan, *University of Washington, Intentionet*
Z. Morley Mao, *University of Michigan and Google*
James Mickens, *Harvard University*
Thomas Moscibroda, *Microsoft*
Deepak Narayanan, *Microsoft Research*
Ravi Netravali, *Princeton University*
Jason Nieh, *Columbia University*
Cristina Nita-Rotaru, *Northeastern University*
Shadi Noghabi, *Microsoft Research*
Aurojit Panda, *New York University*
KyoungSoo Park, *Korea Advanced Institute of Science and Technology (KAIST)*
Bryan Parno, *Carnegie Mellon University*

Daniel Peek, *Meta*
Peter Pietzuch, *Imperial College London*
Dan Ports, *Microsoft Research*
Costin Raiciu, *University Politehnica of Bucharest*
David Richardson, *Apple*
Luis Rodrigues, *INESC-ID, Instituto Superior Técnico, Universidade de Lisboa"*
Christopher Rossbach, *University of Texas at Austin and Katana Graph*
Malte Schwarzkopf, *Brown University*
Marco Serafini, *University of Massachusetts Amherst*
Marc Shapiro, *Sorbonne-Université–LIP6 and Inria*
Ji-Yong Shin, *Northeastern University*
Mark Silberstein, *Technion—Israel Institute of Technology*
Alex C. Snoeren, *University of California, San Diego, and Google*
Ion Stoica, *University of California, Berkeley*
Ryan Stutsman, *University of Utah*
Steven Swanson, *University of California, San Diego*
Adriana Szekeres, *VMware Research*
Kaushik Veeraraghavan, *Facebook*
Geoffrey M. Voelker, *University of California, San Diego*
Roger Wattenhofer, *ETH Zurich*
Michael Wei, *VMware Research*
Yubin Xia, *Shanghai Jiao Tong University*
Tianyin Xu, *University of Illinois at Urbana–Champaign*
Junfeng Yang, *Columbia University*
Ding Yuan, *University of Toronto and YScope*
Lidong Zhou, *Microsoft Research*

Steering Committee

Marcos K. Aguilera, *VMware Research*
Andrea Arpaci-Dusseau, *University of Wisconsin—Madison*
Angela Demke Brown, *University of Toronto*
Jason Flinn, *Meta*
Casey Henderson, *USENIX Association*
Jon Howell, *VMware Research*
Kimberly Keeton
Hank Levy, *University of Washington*
Jay Lorch, *Microsoft Research*
Shan Lu, *University of Chicago*
James Mickens, *Harvard University*
Timothy Roscoe, *ETH Zurich*
Margo Seltzer, *University of British Columbia*
Geoff Voelker, *University of California, San Diego*
Hakim Weatherspoon, *Cornell University and Exotanium, Inc.*

Overview

The 17th USENIX Symposium on Operating Systems Design and Implementation seeks to present innovative, exciting research in computer systems. OSDI brings together professionals from academic and industrial backgrounds in a premier forum for discussing the design, implementation, and implications of systems software. OSDI emphasizes innovative research and quantified or insightful experiences in systems design and implementation.

OSDI takes a broad view of the systems area and solicits contributions from many fields of systems practice, including operating systems, file and storage systems, distributed systems, cloud computing, mobile systems, secure and reliable systems, systems aspects of big data, embedded systems, virtualization, networking as it relates to operating systems, and management and troubleshooting of complex systems. We also welcome work that explores the interface to related areas such as computer architecture, networking, programming languages, analytics, and databases. We encourage contributions with highly original ideas, new approaches, and groundbreaking results.

Submitting a Paper

Submissions will be judged on novelty, significance, interest, clarity, relevance, and correctness. Accepted papers will be shepherded through an editorial review process by a member of the program committee.

A good paper will:

- Motivate a significant problem
- Propose an interesting, compelling solution
- Demonstrate the practicality and benefits of the solution
- Draw appropriate conclusions
- Clearly describe the paper's contributions
- Clearly articulate the advances beyond previous work

Accepted papers will generally be 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. The papers will be available online to everyone beginning on the first day of the conference.

Papers accompanied by nondisclosure agreement forms will not be considered. All submissions will be treated as confidential prior to publication on the USENIX OSDI '23 website; rejected submissions will be permanently treated as confidential.

Simultaneous submission of the same work to multiple venues, submission of previously published work, or plagiarism constitutes dishonesty or fraud. USENIX, like other scientific and technical conferences and journals, prohibits these practices and may, on the recommendation of a program chair, take action against authors who have committed them. See the USENIX Conference Submissions Policy (www.usenix.org/conferences/submissions-policy) for details.

Prior or concurrent workshop publication does not preclude publishing a related paper in OSDI. Authors should email the program co-chairs, osdi23chairs@usenix.org, a copy of the related workshop paper and a short explanation of the new material in the conference paper beyond that published in the workshop version. The co-chairs may then share that paper with the workshop's organizers and discuss it with them.

Prior or concurrent publication in non-peer-reviewed contexts, like arXiv.org, technical reports, talks, and social media posts, is permitted. However, your OSDI submission must use an anonymized name for your project or system that differs from any used in such contexts.

USENIX discourages program co-chairs from submitting papers to the conferences they organize, although they are allowed to do so. Should either program co-chair submit work to OSDI '23, their papers will be handled exclusively by the other program co-chair and reviewed according to the same rigorous and double blinded procedures that the program committee applies to all papers. In the event that a paper is co-authored by, or otherwise conflicted with, both co-chairs, the co-chairs will designate a PC member to manage the reviewing process for that paper.

Questions? Contact your program co-chairs, osdi23chairs@usenix.org, or the USENIX office, submissionspolicy@usenix.org.

By submitting a paper, you agree that at least one of the authors will attend the conference to present it. If the conference registration fee will pose a hardship for the presenter of the accepted paper, please contact conference@usenix.org. For very special circumstances (such as travel restrictions or health issues), USENIX may provide the possibility of remote presentation and Q&A.

If your paper is accepted and you need an invitation letter to apply for a visa to attend the conference, please contact conference@usenix.org as soon as possible. (Visa applications can take at least 30 working days to process.) Please identify yourself as a presenter and include your mailing address in your email.

Deadline and Submission Instructions

Authors must register abstracts and submit full papers by the dates indicated above. These are hard deadlines, and no extensions will be given. Submitted papers must be no longer than 12 single-spaced 8.5" x 11" pages, including figures and tables, plus as many pages as needed for references, using 10-point type on 12-point (single-spaced) leading, two-column format, Times Roman or a similar font, within a text block 7" wide x 9" deep. Accepted papers will be allowed 14 pages in the proceedings, plus references. Papers not meeting these criteria will be rejected without review, and no deadline extensions will be granted for reformatting. Pages should be numbered, and figures and tables should be legible in black and white, without requiring magnification. Papers so short as to be considered "extended abstracts" will not receive full consideration.

Supplementary Material

Authors may upload supplementary material in files separate from their submissions. PC members are not required to read supplementary material when reviewing the paper, so each paper should stand alone without it. Authors may use this for content that may be of interest to some readers but is peripheral to the main technical contributions of the paper. Examples of materials that may be included are: formal proofs that are only sketched in the paper; snippets of code that detail an algorithm presented in the paper; and methodological details that are not essential for the PC's assessment but are important for reproducibility. Importantly, because the PC members are NOT required to read the supplementary material, the submission must stand alone without it. Attaching supplementary material is optional; if your paper says that you have formal proofs or source code, you need not attach them to convince the PC of their existence.

Identity Blinding

The paper review process is double-blind. Authors must make a good faith effort to anonymize their submissions, and they should not identify themselves or their institutions either explicitly or by implication (e.g., through the references or acknowledgments). Submissions violating the detailed formatting and anonymization rules will be rejected without review. If you are uncertain about how to anonymize your submission, contact the program co-chairs, osdi23chairs@ usenix.org, well in advance of the submission deadline.

Abstract Registration

Registering abstracts a week before paper submission is an essential part of the paper-reviewing process, as PC members use this time to identify which papers they are qualified to review. Abstract registrations that do not provide sufficient information to understand the topic and contribution (e.g., empty abstracts, placeholder abstracts, or trivial abstracts) will be rejected, thereby precluding paper submission.

Conflicts

When registering your abstract, you must provide information about conflicts with PC members. A PC member is a conflict if and only if one or more of the following circumstances applies:

Institution: You are currently employed at the same institution, have been previously employed at the same institution within the past two years (not counting concluded internships), or are going to begin employment at the same institution during the review period.

Advisor: You have a past or present association as thesis advisor or advisee.

Collaboration: You have a collaboration on a project, publication, grant proposal, program co-chairship, or editorship within the past two years (December 2020 through December 2022).

Personal: You are close family relatives (spouses, domestic partners, parents, or children).

You must not identify a PC member as a conflict if none of these circumstances applies. For instance, the following are not sufficient grounds to specify a conflict with a PC member: they have reviewed the work before, they are employed by your competitor, they are your friend, they were your post-doc advisor or advisee, or they had the same advisor as you.

The chairs will review paper conflicts to ensure the integrity of the reviewing process, adding or removing conflicts if necessary. The chairs may reject abstracts or papers on the basis of missing or extraneous conflicts. If you have any questions about conflicts, please contact the program co-chairs.

Authors are also encouraged to contact the program co-chairs, osdi23chairs@usenix.org, if needed to relate their OSDI submissions to relevant submissions of their own that are simultaneously under review or awaiting publication at other venues. The program co-chairs will use this information at their discretion to preserve the anonymity of the review process without jeopardizing the outcome of the current OSDI submission.

Papers must be in PDF format and must be submitted via the submission system. For more details on the submission process, and for templates to use with LaTeX, Word, etc., authors should consult the detailed submission requirements at www.usenix.org/osdi23/requirements-authors.

Author Response Period

OSDI will provide an opportunity for authors to respond to reviews prior to final consideration of the papers at the program committee meeting, during the dates shown above. Authors must limit their responses to (a) correcting factual errors in the reviews or (b) directly addressing questions posed by reviewers. Responses should be limited to clarifying the submitted work. In particular, responses must not include new experiments or data, describe additional work completed since submission, or promise additional work to follow.

Submission of a response is optional. The response can be of any length up to 2000 words. A shorter and crisper response is often advantageous, while a response longer than 2000 words is prohibited.

Revise and resubmit

OSDI '23 introduces the option to revise and resubmit for some of the rejected papers. If a paper is given this option as indicated in the acceptance notification, authors will be provided with a list of issues to address. Authors may then resubmit a revised version with a response to the issues. If accepted, the paper will be presented at OSDI '24.