

OSDI '22: 16th USENIX Symposium on Operating Systems Design and Implementation

July 11–13, 2022, Carlsbad, CA, USA



Sponsored by USENIX in cooperation with ACM SIGOPS

The 16th USENIX Symposium on Operating Systems Design and Implementation will take place on July 11–13, 2022, at the Omni La Costa Resort & Spa in Carlsbad, CA, USA.

Important Dates

- Abstract registrations due: **Tuesday, December 7, 2021, 2:59 pm PST**
- Complete paper submissions due: **Tuesday, December 14, 2021, 2:59 pm PST**

Author Response Period

- Reviews available: **Monday, March 7, 2022**
- Author responses due: **Wednesday, March 9, 2022**
- Notification to authors: **Friday, March 25, 2022**
- Final paper files due: **Wednesday, June 1, 2022**

Conference Organizers

Program Co-Chairs

Marcos K. Aguilera, *VMware Research*
Hakim Weatherspoon, *Cornell University and Exotanium, Inc.*

Program Committee

Atul Adya, *Google*
Nitin Agrawal, *ThoughtSpot*
Marcos K. Aguilera, *VMware Research*
Deniz Altinbükten, *Google*
Behnaz Arzani, *Microsoft Research*
Mahesh Balakrishnan, *Facebook*
Oana Balmau, *McGill University*
Andrew Baumann, *Microsoft Research*
Adam Belay, *MIT CSAIL*
Ranjita Bhagwan, *Microsoft Research*
Annette Bieniusa, *Technische Universität Kaiserslautern*
Ken Birman, *Cornell University*
Rodrigo Bruno, *INESC-ID and Instituto Superior Técnico, University of Lisbon*
Irina Calciu, *Graft*
George Candea, *EPFL*
Marco Canini, *KAUST*
Miguel Castro, *Microsoft*

Rong Chen, *Shanghai Jiao Tong University*
Byung-Gon Chun, *Seoul National University and FriendliAI*
Asaf Cidon, *Columbia University*
Landon Cox, *Microsoft Research*
Natacha Crooks, *University of California, Berkeley*
Murat Demirbas, *Amazon Web Services*
Yufei Ding, *University of California, Santa Barbara*
Roxana Geambasu, *Columbia University*
Ashvin Goel, *University of Toronto*
Haryadi S. Gunawi, *University of Chicago*
Indranil Gupta, *University of Illinois at Urbana–Champaign*
Andreas Haeberlen, *University of Pennsylvania*
Wenjun Hu, *Yale University*
Rüdiger Kapitza, *Technische Universität Braunschweig*
Manos Kapritsos, *University of Michigan*
Baris Kasikci, *University of Michigan*
Ana Klimovic, *ETH Zurich*
Eddie Kohler, *Harvard University*
Kevin Kornegay, *Morgan State University*
Dejan Kostić, *KTH Royal Institute of Technology*
Philip Levis, *Stanford University*
Jialin Li, *National University of Singapore*
Jonathan Mace, *Max Planck Institute for Software Systems (MPI-SWS)*
Ratul Mahajan, *University of Washington and Intentionet*
Petros Maniatis, *Google Research*
Z. Morley Mao, *University of Michigan*
Kathryn S McKinley, *Google*
Neha Narula, *Massachusetts Institute of Technology*
Ravi Netravali, *Princeton University*
Jason Nieh, *Columbia University*
Cristina Nita-Rotaru, *Northeastern University*
Shadi Noghabi, *Microsoft Research*
Sam H. Noh, *UNIST (Ulsan National Institute of Science and Technology)*
Aurojit Panda, *NYU*
Amar Phanishayee, *Microsoft Research*
Peter Pietzuch, *Imperial College London*
Luis Rodrigues, *INESC-ID and Instituto Superior Técnico, University of Lisbon*
Christopher Rossbach, *The University of Texas at Austin and Katana Graph*
Malte Schwarzkopf, *Brown University*
Marco Serafini, *University of Massachusetts Amherst*
Marc Shapiro, *Inria and UPMC-LIP6*



Ji-Yong Shin, *Northeastern University*
Liuba Shrira, *Brandeis University*
Vishal Shrivastav, *Purdue University*
Alex C. Snoeren, *University of California, San Diego*
Robert Soulé, *Yale University*
Phillip Stanley-Marbell, *University of Cambridge*
Swami Sundararaman, *Pyxeda AI*
Adriana Szekeres, *VMware Research*
Amy Tai, *VMware Research*
Doug Terry, *Amazon Web Services*
Dan Tsafir, *Technion—Israel Institute of Technology and VMware Research*
Ymir Vigfusson, *Emory University*
Rashmi Vinayak, *Carnegie Mellon University*
Hakim Weatherspoon, *Cornell University and Exotanium, Inc.*
Bernard Wong, *University of Waterloo*
Tim Wood, *George Washington University*
Gala Yadgar, *Technion—Israel Institute of Technology*
Ding Yuan, *University of Toronto*
Gerd Zellweger, *VMware Research*
Yiyang Zhang, *University of California, San Diego*

Steering Committee

Andrea Arpaci-Dusseau, *University of Wisconsin—Madison*
Angela Demke Brown, *University of Toronto*
Jason Flinn, *Facebook*
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*

Overview

The 16th 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 shepherd 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 '22 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.

For instance, FAST '22 and NSDI '22 have author notification dates after the OSDI '22 abstract registration deadline. If you submit a paper to either of those venues, you may not submit it to OSDI '22.

Prior or concurrent workshop publication does not preclude publishing a related paper in OSDI. Authors should email the program co-chairs, osdi22chairs@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. The OSDI '22 program co-chairs have agreed not to submit their work to OSDI '22.

Questions? Contact your program co-chairs, osdi22chairs@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.

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. Only two types of supplementary material are permitted: source code described in the paper and formal proofs sketched in the paper. Attaching supplementary material is optional; if your paper says that you have source code or formal proofs, 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, osdi22chairs@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 2019 through March 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, osdi22chairs@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/osdi22/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. There is no explicit limit to the response, but authors are strongly encouraged to keep it under 500 words; reviewers are neither required nor expected to read excessively long responses.

Revise and resubmit

OSDI '22 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 '23.