

FAST '18: 16th USENIX Conference on File and Storage Technologies

February 12–15, 2018 • Oakland, CA



Sponsored by USENIX, the Advanced Computing Systems Association

Important Dates

- Paper submissions due: **Thursday, September 28, 2017, 11:59 p.m. PDT**
- Tutorial submissions due: **Thursday, September 28, 2017, 11:59 p.m. PDT**
- Notification to authors: **Monday, December 11, 2017**
- Final paper files due: **Tuesday, January 23, 2018**

Conference Organizers

Program Co-Chairs

Nitin Agrawal, *Samsung Research*
Raju Rangaswami, *Florida International University*

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Tutorial Coordinators

John Strunk, *NetApp*
Eno Thereska, *Confluent*



Overview

The 16th USENIX Conference on File and Storage Technologies (FAST '18) brings together storage-system researchers and practitioners to explore new directions in the design, implementation, evaluation, and deployment of storage systems. The program committee will interpret "storage systems" broadly; papers on low-level storage devices, distributed storage systems, and information management are all of interest. The conference will consist of technical presentations including refereed papers, Work-in-Progress (WiP) reports, poster sessions, and tutorials.

FAST accepts both full-length and short papers. Both types of submissions are reviewed to the same standards and differ primarily in the scope of the ideas expressed. Short papers are limited to half the space of full-length papers. The program committee will not accept a full paper on the condition that it is cut down to fit in the short paper page limit, nor will it invite short papers to be extended to full length. Submissions will be considered only in the category in which they are submitted.

Topics

Topics of interest include but are not limited to:

- Archival storage systems
- Auditing and provenance
- Big data, analytics, and data sciences
- Caching, replication, and consistency
- Cloud storage
- Data deduplication
- Database storage
- Distributed and networked storage (wide-area, grid, peer-to-peer)
- Empirical evaluation of storage systems
- Experience with deployed systems
- File system design
- High-performance file systems
- Key-value and NoSQL storage
- Memory-only storage systems
- Mobile, personal, embedded, and home storage
- Parallel I/O and storage systems
- Power-aware storage architectures
- RAID and erasure coding
- Reliability, availability, and disaster tolerance
- Search and data retrieval
- Solid state storage technologies and uses (e.g., flash, byte-addressable NVM)
- Storage management
- Storage networking
- Storage performance and QoS
- Storage security

Deployed Systems

In addition to papers that describe original research, FAST '18 also solicits papers that describe large-scale, operational systems. Such papers should address experience with the practical design, implementation, analysis, or deployment of such systems. We encourage submission of papers that disprove or strengthen existing assumptions, deepen the understanding of existing problems, and validate known techniques at scales or in environments in which they were never before used or tested. Deployed-system papers need not necessarily present new ideas or results to be accepted, although that is certainly welcome, but should offer useful guidance to practitioners.

Authors should indicate on the title page of the paper and in the submission form that they are submitting a deployed-system paper.

Submission Instructions

Please submit full and short paper submissions (no extended abstracts) by 11:59 p.m. PDT on September 28, 2017, in PDF format via the Web submission form linked from the FAST '18 Web site. Do not email submissions. There is no separate deadline for abstract submission.

- The complete submission must be no longer than 12 pages for full papers and 6 pages for short papers, excluding references. The program committee will value conciseness, so if an idea can be expressed in fewer pages than the limit, please do so. Supplemental material may be appended to the paper without limit; however the reviewers are not required to read such material or consider it in making their decision. Any material that should be considered to properly judge the paper for acceptance or rejection is not supplemental and will apply to the page limit. Papers should be typeset on U.S. letter-sized pages in two-column format in 10-point Times Roman type on 12-point leading (single-spaced), with the text block being no more than 6.5" wide by 9" deep. 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. Because references do not count against the page limit, they should not be set in a smaller font. **Submissions that violate any of these restrictions will not be reviewed.** The limits will be interpreted strictly. No extensions will be given for reformatting.
- Templates and sample first pages (two-column format) for Microsoft Word and LaTeX are available on the USENIX templates page at www.usenix.org/templates-conference-papers
- **Authors must not be identified in the submissions, either explicitly or by implication.** When it is necessary to cite your own work, cite it as if it were written by a third party. Do not say "reference removed for blind review." Any supplemental material must also be anonymized.
- 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 take action against authors who have committed them. See the USENIX Conference Submissions Policy at www.usenix.org/conferences/submissions-policy for details.
- If you are uncertain whether your submission meets USENIX's guidelines, please contact the program co-chairs, fast18chairs@usenix.org, or the USENIX office, submissionspolicy@usenix.org.
- Papers accompanied by nondisclosure agreement forms will not be considered.

Short papers present a complete and evaluated idea that does not need 12 pages to be appreciated. Short papers are not workshop papers or work-in-progress papers. The idea in a short paper needs to be formulated concisely and evaluated, and conclusions need to be drawn from it, just like in a full-length paper.

The program committee and external reviewers will judge papers on technical merit, significance, relevance, and presentation. A good research paper will demonstrate that the authors:

- are attacking a significant problem,
- have devised an interesting, compelling solution,
- have demonstrated the practicality and benefits of the solution,
- have drawn appropriate conclusions using sound experimental methods,
- have clearly described what they have done, and
- have clearly articulated the advances beyond previous work.

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A good deployed-system paper will demonstrate that the authors:

- are describing an operational system that is of wide interest,
- have addressed the practicality of the system in more than one real-world environment, especially at large scale,
- have clearly explained the implementation of the system,
- have discussed practical problems encountered in production, and
- have carefully evaluated the system with good statistical techniques.

Moreover, program committee members, USENIX, and the reading community generally value a paper more highly if it clearly defines and is accompanied by assets not previously available. These assets may include traces, original data, source code, or tools developed as part of the submitted work.

Blind reviewing of all papers will be done by the program committee, assisted by outside referees when necessary. Each accepted paper will be shepherded through an editorial review process by a member of the program committee.

Authors will be notified of paper acceptance or rejection no later than Monday, December 11, 2017. 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.

All papers will be available online to registered attendees no earlier than Tuesday, January 24, 2018. 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 main conference, February 13, 2018. Accepted submissions will be treated as confidential prior to publication on the USENIX FAST '18 Web site; rejected submissions will be permanently treated as confidential.

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 you need a bigger testbed for the work that you will submit to FAST '18, see PRObE at www.nmc-probe.org.

Best Paper Awards

Awards will be given for the best paper(s) at the conference. A small, selected set of papers will be forwarded for publication in *ACM Transactions on Storage (TOS)* via a fast-path editorial process. Both full and short papers will be considered.

Test of Time Award

We will award a FAST paper from a conference at least 10 years earlier with the "Test of Time" award in recognition of its lasting impact on the field.

Work-in-Progress Reports and Poster Sessions

The FAST technical sessions will include a slot for short Work-in-Progress (WiP) reports presenting preliminary results and opinion statements. We are particularly interested in presentations of student work and topics that will provoke informative debate. While WiP proposals will be evaluated for appropriateness, they are not peer reviewed in the same sense that papers are.

We will also hold poster sessions each evening. WiP submissions will automatically be considered for a poster slot, and authors of all accepted full papers will be asked to present a poster on their paper. Other poster submissions are very welcome. Please see the Call for Posters and WiPs, which will be available soon, for submission information.

Birds-of-a-Feather Sessions

Birds-of-a-Feather sessions (BoFs) are informal gatherings held in the evenings and organized by attendees interested in a particular topic. BoFs may be scheduled in advance by emailing the Conference Department at bofs@usenix.org. BoFs may also be scheduled at the conference.

Tutorial Sessions

Tutorial sessions will be held on February 12, 2018. Please submit your tutorial proposals to fasttutorials@usenix.org by 11:59 p.m. PDT on September 28, 2017.

Registration Materials

Complete program and registration information will be available in December 2017 on the conference Web site.