

HotStorage '19: 11th USENIX Workshop on Hot Topics in Storage and File Systems

July 8–9, 2019, Renton, WA, USA

Sponsored by USENIX, the Advanced Computing Systems Association



HotStorage '19 will be co-located with the 2019 USENIX Annual Technical Conference, July 10–12, 2019.

Important Dates

- Paper submissions due: **Wednesday, March 13, 2019, 8:59:59 p.m. PDT**
- Notification to authors: **Wednesday, April 17, 2019**
- Final paper files due: **Thursday, May 16, 2019**

Conference Organizers

Program Co-Chairs

Daniel Peek, *Facebook*

Gala Yadgar, *Technion—Israel Institute of Technology*

Program Committee

George Amvrosiadis, *Carnegie Mellon University*

Anirudh Badam, *Microsoft Research*

Bill Bolosky, *Microsoft Research*

André Brinkmann, *Johannes Gutenberg-University Mainz*

Feng Chen, *Louisiana State University*

Peter Desnoyers, *Northeastern University*

Danny Harnik, *IBM Research*

Tim Harris, *Amazon S3*

Dean Hildebrand, *Google*

Yu Hua, *Huazhong University of Science and Technology*

Xiaosong Ma, *Qatar Computing Research Institute and Hamad Bin Khalifa University*

Peter Macko, *NetApp*

Mike Mesnier, *Intel Labs*

Ethan Miller, *University of California, Santa Cruz and Pure Storage*

Raju Rangaswami, *Florida International University*

Jiri Schindler, *Hewlett Packard Enterprise*

Phil Shilane, *Dell EMC*

Vasily Tarasov, *IBM Research*

Avani Wildani, *Emory University*

Youjip Won, *Korea Advanced Institute of Science and Technology (KAIST)*

Steering Committee

Nitin Agrawal, *Samsung Research*

Marcos Aguilera, *VMware*

Angela Demke Brown, *University of Toronto*

Fred Douglass, *Perspecta Labs*

Ashvin Goel, *University of Toronto*

Casey Henderson, *USENIX Association*

Sam H. Noh, *UNIST (Ulsan National Institute of Science and Technology)*

Raju Rangaswami, *Florida International University*

Erik Riedel

John Strunk, *Red Hat*

Nisha Talagala, *ParallelM*

Overview

The HotStorage workshop provides a forum for cutting-edge storage research, a place where researchers and industry practitioners can discuss new opportunities and challenges in storage technology. Submissions should propose new research directions, explore non-traditional approaches, or report on noteworthy or counterintuitive learnings and experience in emerging areas. Submissions will be judged on their originality, technical merit, topical relevance, and the likelihood of leading to insightful discussions that will influence future storage systems design and applications.

In keeping with the goals of the HotStorage workshop, the review process will favor submissions that are forward-looking and open-ended. If you are only a few months away from submitting to FAST, NSDI, EuroSys, VLDB, OSDI, SOSP, etc. you are probably already past the sweet spot for HotStorage. If you have a forward-looking or unorthodox idea or new research, and some evidence or early working system to support your view, but still have open questions, please consider bringing your work to HotStorage. The program committee will also welcome position papers that solicit discussion on controversial topics, introduce emerging methods and paradigms, or call out for new research directions.



Topics of Interest

HotStorage '19 welcomes innovative submissions in the broad areas of storage, data management, data applications, and cross-disciplinary topics that relate to these. Specific areas are below but are not exhaustive.

- New and complex memory hierarchies
- Persistent memory
- Storage for edge devices (sensors, home, and IoT etc.)
- Distributed edge/cloud storage management
- Application-specific storage
- Applications of machine learning and deep learning to data management
- Archival storage
- Big-data management (stream processing, batch analytics etc.)
- Storage for analytics applications
- Cloud storage
- Memory-centric storage systems
- Key-value and NoSQL stores
- Solid-state storage, systems, and optimizations
- Energy-efficient storage
- File systems
- Mobile storage
- Performance modeling and prediction for storage
- Programming models for data management
- Quality of service for storage
- Caching, tiering, and replication
- Distributed storage and data consistency
- Security of storage
- Software-defined storage
- Storage and server convergence

What to Expect from the Workshop

The program committee encourages active participation from authors, presenters, and attendees. A key element of this is a moderated discussion on each presented paper where contributions from workshop participants are highly encouraged. We'd like to hear from people about additional context, issues, and prior work—not just ask questions. To allow this level of engagement, the accepted papers will be available for download at least a week in advance so participants can come prepared.

HotStorage '19 will be a two-day workshop. At least one author of each accepted paper must attend the workshop to present the paper and answer questions at the conclusion. Presentation details and guidelines will be communicated to the authors of the accepted papers. Authors of accepted papers will also be expected to prepare a poster summarizing their submission to be presented as part of a HotStorage '19 poster session.

In addition to the traditional time allocated for questions after each presentation, there will be an online discussion for each paper, which will provide another forum for engagement. This will also be facilitated by a discussion section in the paper, as described below.

Submission Instructions

Regular submissions must be no longer than five (5) two-column pages excluding references and should be submitted electronically via the submission form linked from the Call for Papers website, www.usenix.org/hotstorage19/cfp.

NEW: Discussion Topics Section: In keeping with the workshop format described above, authors of each full paper are required to add an additional section (beyond the 5-page limit), immediately before references, no longer than a half a page (i.e., a single (1) column) that explicitly calls out what kind of feedback the authors are looking to receive. These could be specific questions about feasibility, applicability, open problems, challenges, limitations, specific design choices, assumptions, importance, or similar issues. The review process will favor papers that are likely to stimulate discussion and benefit from feedback from workshop participants.

Submissions should be PDF documents that are viewable by standard tools. Submissions must follow the USENIX formatting guidelines: 10-point type on 12-point (single-spaced) leading, with the text block being no more than **7" wide by 9" deep**. Please note that this text block size has changed.

Submissions to HotStorage '19 may not be under consideration for any other venue. 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 for details at www.usenix.org/conferences/author-resources/submissions-policy. Questions? Contact your program co-chairs, hotstorage19chairs@usenix.org, or the USENIX office, submissionspolicy@usenix.org.

The review process is not blind. The names and affiliations of the authors should be included on the first page. The names of the reviewers, however, will remain anonymous. Papers accompanied by non-disclosure agreement forms will not be considered. Accepted submissions will be treated as confidential prior to publication on the USENIX HotStorage '19 website; rejected submissions will be permanently treated as confidential.

All papers will be available online to registered attendees before the workshop. 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 workshop.