

Fourth Workshop on Disruptive Memory Systems (DIMES)

Co-located with the 32nd ACM Symposium on Operating Systems Principles (SOSP 2026) Prague, Czechia, September 29th, 2026

Call for Contributions

New system software is essential for using emerging memory technologies effectively. Novel memory types, interfaces, and capabilities are challenging long-held assumptions underlying memory system design and operation. Instead of traditional volatile, passive, and largely homogeneous DDR DRAM, future systems will increasingly include integrated HBM, cost-effective local memory tiers, and disaggregated far memory. “In-memory” and “near-memory” processing promise low-power parallel processing that will scale with the amount of active data. New memory interconnects such as UALink and CXL will enable independently scaling compute and memory and permit heterogeneous pooling and sharing of memory between machines.

Beyond lower energy consumption and higher processing power, these memory innovations also promise to disrupt with lower cost, higher capacity, or higher reliability. The Workshop on Disruptive Memory Systems (DIMES) is intended to be a forum to discuss new architectures, abstractions, and interfaces for system software to enable and exploit these new memory technologies in future software. The scope of DIMES covers system software for all computing domains: cloud, HPC, edge, desktop, mobile and embedded systems.

Submissions

The workshop allows two types of submissions: **papers & demos**.

Submitted **papers** must represent original material that is not currently under review in any other conference or journal, and has not been previously published. All paper submissions should be written in English and follow the two-column ACM SIGPLAN article style (<https://www.acm.org/publications/proceedings-template>, `acmart` L^AT_EX style with options `sigplan,anonymous,10pt`). Papers must not exceed the length of six (6) printed pages plus references using a 10-point font. The CCS Concepts, Keywords, and ACM Reference Format sections are not required in submissions.

All **demo** submissions come in form of an extended abstract with a maximum length of two (2) printed pages plus references with the same format as paper submissions. In addition to **giving a live demo** at the workshop, demo presenters are required to **produce a video**. We also encourage authors of paper submission to optionally present a demo; this does not require a separate submission of an extended abstract.

Papers and demo abstracts must be submitted in PDF format via the workshop website. They will be reviewed by the program committee and evaluated based on technical quality, originality, relevance, and presentation. Submissions are double-blind: please make sure your submission is properly anonymized.

Accepted submissions will be published in the ACM Digital Library.¹ The authors of accepted submissions will be required to sign ACM copyright release forms.

Topics of Interest

DIMES focuses on the **system software** aspects of disruptive memory technologies. Suggested topics for submissions include all aspects of system software that are affected by emerging memory technologies in cloud, HPC, edge, desktop, mobile and embedded systems, and related domains.

Topics of interest include, but are not limited to:

- memory system design
- memory management abstractions
- operating system support for memory management
- memory-centric programming models
- emerging memory technologies
- memory-intensive applications
- evaluation of memory-centric systems

We encourage authors to submit papers on concepts, early-stage work, and demos of prototype systems.

Important Dates

Paper/demo submission deadline: ~~May 29~~ **June 5, 2026**
 Acceptance notification: July 10, 2026
 Final camera-ready paper due: August 28, 2026
 Workshop presentations: **September 29, 2026**

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