callforpaper.org

Canada May 5-9, 2025

CONFERENCE WEBSITE: https://hotcloudperf.spec.org/

## About the Conference

=== The Eight Workshop on Hot Topics in Cloud Computing Performance ===
(HotCloudPerf-2025)

https://hotcloudperf.spec.org

VENUE: Held in conjunction with ICPE, May 5-9, 2025, Toronto, CA.
Contact: dragi.kimovski@aau.at, k.m.tocze@vu.nl

IMPORTANT DATES (Anywhere on Earth)

January 17, 2025 Abstract due (informative)
January 24, 2025 Papers due
February 17, 2025 Author Notification
February 26, 2025 Camera-ready
May 5 or 9, 2025 Workshop Day

WORKSHOP THEME AND BACKGROUND

Cloud computing is emerging as one of the most profound changes in the way we build and use IT.

**Important Dates**

MAY 05

CONFERENCE DATE
**May 5-9, 2025**

The use of global services in public clouds is increasing, and the lucrative and rapidly growing global cloud market already supports over 1 million IT-related jobs. However, it is currently challenging to make the IT services offered by public and private clouds performant (in an extended sense) and efficient. Emerging architectures, techniques, and real-world systems include interactions with the computing continuum, serverless operation, everything as a service, complex workflows, auto-scaling and -tiering, etc. It is unclear to which extent traditional performance engineering, software engineering, and system design and analysis tools can help with understanding and engineering these emerging technologies. The community also needs practical tools and powerful methods to address hot topics in cloud computing performance.

Responding to this need, the HotCloudPerf workshop proposes a meeting venue for academics and practitioners, from experts to trainees, in the field of cloud computing performance. The workshop aims to engage this community and to lead to the development of new methodological aspects for gaining a deeper understanding not only of cloud performance, but also of cloud operation and behavior, through diverse quantitative evaluation tools, including benchmarks, metrics, and workload generators. The workshop focuses on novel cloud properties such as elasticity, performance isolation, dependability, and other non-functional system properties, in addition to classical performance-related metrics such as response time, throughput, scalability, and efficiency.

The HotCloudPerf workshop is technically sponsored by the Standard Performance Evaluation Corporation (SPEC)’s Research Group (RG), and is organized annually by the RG Cloud Group. HotCloudPerf has emerged from the series of yearly meetings organized by the RG Cloud Group, since 2013. The RG Cloud Group group is taking a broad approach, relevant for both academia and industry, to cloud benchmarking, quantitative evaluation, and experimental analysis.

HotCloudPerf 2025 will be organized as a physical workshop with remote participation facilities. Presenters of accepted papers are encouraged to attend the workshop physically. For more information, please contact us at: dragi.kimovski@aau.at

## WORKSHOP SCOPE AND TOPICS

1. Empirical performance studies in cloud and edge computing environments, applications, and systems, including observation, measurement, and surveys.

2. Performance analysis using modeling and queueing theory for cloud environments, applications, and systems.

3. Simulation-based studies for all aspects of cloud computing performance.

4. Operational techniques for self-organization, resource management, and scheduling in cloud environments, e.g. service meshes, auto-scaling, auto-tiering.

5. End-to-end performance engineering for pipelines and workflows in cloud environments, or of applications with non-trivial SLAs.

6. Tools for monitoring and studying cloud computing performance.

7. General and specific methods and methodologies for understanding and engineering cloud performance.

8. Methodological and practical aspects of software engineering, performance engineering, and computer systems related to hot topics in cloud performance, e.g. serverless, microservices, non Von Neumann architectures, virtualization/containerization.

9. Case studies on cloud performance and its interaction with the computing continuum, including benchmarking, exploratory studies, dataset collection and negative results.

10. Sustainability and energy-efficiency in cloud computing environments, applications, and systems.

11. Network, storage and accelerators in the computing continuum.

Cloud computing environments, applications, and

systems should be understood in the broad sense and include works looking at the computing continuum (i.e. IoT-edge/fog-cloud).

## ARTICLE SUBMISSION GUIDELINES

We solicit the following types of contributions:

* Full paper limited to 6 pages including figures and tables but not references and appendices (double column, ACM conference format)
* Short paper limited to 3 pages including figures and tables but not references and appendices (double column, ACM conference format)
* Talk only (1-2 pages, not included in the proceedings).

Contributions in the 3rd category (Talk only) may have already been (partially) presented at other events or in publications and are not included in the conference proceedings. Contributions in the 1st and 2nd category (technical papers) must represent original and unpublished work that is not currently under review. Full papers may report on original research, lessons learned from realizing an approach, or experiences on transferring a research prototype into practice. Short papers may report on work-in-progress, a tool/demo, or present a vision or position motivating the community to address new challenges.

Articles and talk only contributions are required to be submitted via HotCRP (https://hotcloudperf25.hotcrp.com/).

Articles must use the ACM conference format. Each valid submission will receive at least three (3) peer reviews. Presented papers will be published by ACM and included in the ACM Digital Library. Adhering to ACM guidelines for conferences, ICPE requires that at least one author of each accepted paper attends (in person or remote) the workshop and presents the paper. The review process is single-blind.

By submitting your article to an ACM Publication, you are hereby acknowledging that you and your co-authors are subject to all ACM Publications Policies, including ACM's new Publications Policy on Research Involving Human Participants and Subjects. Alleged violations of this policy or any ACM Publications Policy will be investigated by ACM and may result in a full retraction of your paper, in addition to other potential penalties, as per ACM Publications Policy.

Please ensure that you and your co-authors obtain an ORCID ID, so you can complete the publishing process for your accepted paper. ACM has been involved in ORCID from the start and we have recently made a commitment to collect ORCID IDs from all of our published authors. We are committed to improve author discoverability, ensure proper attribution and contribute to ongoing community efforts around name normalization; your ORCID ID will help in these efforts.

ORGANIZING COMMITTEE

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Maxime Gonthier (University of Chicago, US)

**TOPICS OF INTEREST** 3 topics

Research papers are invited in, but not limited to, the following areas:

- Computer Science & Software Engineering
- Networking & Cloud Computing
- Uncategorized



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