



Call for Papers

Nowadays, cloud computing is widely used by industry with an estimate of the worldwide cloud market of about 940 USD billions with a compound annual growth rate of about 16%. Cloud computing provides, among the others, the capacity to run the backend of web applications, or to train artificial intelligence applications, or to run big data analytics. However, the accelerated migration towards mobile computing and Internet of Things, where a huge amount of data is generated by widespread end-devices, is determining the rise of the computing continuum paradigm, where resources are distributed among devices with highly heterogeneous capacities. This promises reduced latency and higher throughput thanks to local processing. However, in reality, there are still many open challenges concerning the fast development, testing, and operation of computing continuum software, especially when we must provide specific performance guarantees in the end-to-end application execution. Indeed, computing continua are inherently fragmented, IoT/edge devices are highly heterogeneous providing different computing capabilities but also introducing proprietary development, deployment and operation frameworks. In this context, dominating the complexity of multiple coexisting frameworks, as well as managing component placement and resource allocation, become crucial to orchestrate at best the continuum resources.

The goal of the FastContinuum workshop is to foster discussion and collaboration among researchers from cloud/edge/fog/computing continuum and performance analysis communities, to share the relevant topics and results of the current approaches. The topics of interest include but are not limited to:

- ▶▶ Modeling and evaluation of computing continuum applications performance
- ▶▶ Cloud, edge, grid, and fog as continuum components
- ▶▶ Computing continuum benchmarking
- ▶▶ Autonomous, resilient and adaptive systems, and applications
- ▶▶ Application to resource mapping optimization, tasks scheduling
- ▶▶ Microservices in the computing continuum, Function as a Service systems
- ▶▶ Data-intensive and stream processing systems and applications
- ▶▶ Machine learning and artificial intelligence applications
- ▶▶ Cyber-physical systems, IoT, industrial internet
- ▶▶ Infrastructure as a Service and Infrastructure as Code, automation in the computing continuum
- ▶▶ Modeling and verification of application deployment plans
- ▶▶ DevSecOps for computing continuum applications
- ▶▶ Computing continuum monitoring
- ▶▶ Sandbox environments for simulation/emulation of continuum resources

Submission guidelines

Authors are invited to submit original, unpublished papers that are not being considered in another forum. We solicit full papers (max. 8 pages) as well as short and demo papers (max. 5 pages). Short papers can include reports about research activities not mature enough for a full paper as well as new ideas and vision papers. All submissions must conform to the standard ACM format for conference proceedings. More specifically, the double-column formats have to be used for all paper submissions. Each paper submission will be reviewed by at least three members of the program committee. Papers can be submitted via EasyChair: easychair.org/my/conference?conf=icpe2023, FastContinuum 2023 workshop track.

Papers will be published by ACM in the ICPE2023 Proceedings and Companion volume.

At least one author of each accepted paper is required to attend the workshop and present the paper. Presented papers will be published as part of the ACM ICPE 2023 companion post-proceedings.

Important dates

📅 Workshop paper submissions:
January 22, 2023

📅 Notification of acceptance:
February 13, 2023

📅 Camera-ready copies:
February 20, 2023

📅 Workshop date:
April 15 or 16, 2023 TBC

Organizing committee

General co-chairs: Danilo Ardagna, Elisabetta Di Nitto (*Politecnico di Milano*)

Program co-chairs: Lorenzo Blasi (*Hewlett-Packard Enterprise*) and Francesc Lordan (*Barcelona Supercomputing Center*)

Web chair: Hamta Sedghani (*Politecnico di Milano*)

Publicity chair: Galia Novakova Nedeltcheva (*Politecnico di Milano*)

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