International Workshop on Quality of Service-Aware Serverless Computing (QServ '23)

https://qserv23.github.io

The International Workshop on Quality of Service-Aware Serverless Computing (QServ '23) is co-located with the 16th IEEE/ACM International Conference on Utility and Cloud Computing (UCC 2023) that will take place in Taormina (Italy) on December 4-7, 2023.

Important Dates

- Submission deadline: September 1, 2023
- Notification to authors: September 30, 2023
- Camera-ready deadline: October 21, 2023
- Workshop: December 4-7, 2023 (TBA)

All times in Anywhere on Earth (AoE) timezone.

Scope and Topics

Serverless computing has gained enormous popularity in recent years, promising seamless scalability, fine-grained pricing, and simplified management. According to the serverless paradigm, providers should take care of most operational issues, with users only responsible for deploying applications and specifying desired Quality of Service (QoS) levels. This fostered the development of the so-called Function-as-a-Service (FaaS) computing paradigm, that is nowadays offered by most popular cloud providers.

However, current implementations of serverless struggle to fully realize this computing paradigm vision, and serverless adoption for many applications is slowed down. For instance, latency-sensitive applications cannot tolerate unpredictable cold start delays of FaaS platforms; also, stateful serverless applications are currently not well supported.

These challenges become even more difficult to solve as we consider the adoption of serverless at the edge of the network as well as in the emerging cloud-edge continuum, where resource constraints and their heterogeneity represent a serious challenge for QoS guarantees.

In this workshop, we solicit high quality contributions that fit with the overarching theme of guaranteeing QoS levels in serverless computing systems and applications.

We invite submissions of original research papers, as well as vision papers and experience reports.

Topics of interest include (but are not limited to):

- Performance modeling, isolation, and optimization for serverless applications
- Resource management for serverless systems in cloud and edge environments
- Middleware and frameworks for QoS-aware serverless
- Serverless architectures in the cloud-edge continuum
- Scheduling, offloading, and elasticity techniques for serverless functions
- Reliable, fault-tolerant, and available serverless systems
- Energy-efficient and sustainable serverless computing
- QoS-aware serverless in Internet of Things applications
- Artificial Intelligence solutions for QoS-aware orchestration of serverless functions

Submission Instructions

Authors are invited to submit papers electronically through the following link: https://cmt3.research.microsoft.com/QSERV2023/Track/1/Submission/Create

Submitted manuscripts must represent original unpublished research that is not currently under review for any other conference or journal. Manuscripts are submitted in PDF format and may not exceed six (6) pages, including figures, tables, and references, in the standard ACM format for conference proceedings. All manuscripts will be reviewed and judged on correctness, originality,technical strength, rigour in analysis, quality of results, quality of presentation, and interest and relevance to the conference attendees. Your submission is subject to a determination that you are not under any sanctions by ACM.

At least one author of each paper must be registered for the conference (full registration; non-workshop, non-student) in order for the paper to be published in the proceedings.

Workshop Co-Chairs

- Matteo Nardelli (Bank of Italy, Italy)
- Gabriele Russo Russo (University of Rome Tor Vergata, Italy)
- Carlo Vallati (University of Pisa, Italy)