

Welcome from the Chairs

Welcome to the 7th Workshop on Verification and Monitoring at Runtime Execution (VORTEX 2024), hosted in Vienna, Austria, September 19th, 2024, co-located with ECOOP/ISSTA 2024.

Runtime Monitoring (RM) is concerned with the runtime analysis of software and hardware system executions in order to infer properties relating to system behaviour. Example applications include telemetry, log aggregation, threshold alerting, performance monitoring and adherence to correctness properties (more commonly referred to as runtime verification).

RM has gained popularity as a solution to ensure software reliability, bridging the gap between formal verification and testing: on the one hand, the notion of event trace abstracts over system executions, thus favoring system agnosticism to better support reuse and interoperability. On the other hand, monitoring a system offers more opportunities for addressing error recovery, self-adaptation, and issues that go beyond software reliability.

The goal of VORTEX is to bring together researchers contributing on all aspects of RM covering and possibly integrating both theoretical and practical aspects, with particular focus on hybrid approaches inspired by formal methods, program analysis, testing, and artificial intelligence.

The proceedings include two short keynotes, one full keynote and six full papers, proposing and discussing original and partially developed contributions on topics relevant for the workshop. All six manuscripts underwent a lightweight revision with 4 reviews per paper.

We are grateful to all authors and the PC members for all their efforts in contributing to the success of VORTEX 2024.

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