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VORTEX '23

Proceedings of the 6th International Workshop on

Verification and Monitoring at Runtime Execution

Edited by:

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Message from the Chairs

Welcome to the 6th Workshop on Verification and Monitoring at Runtime Execution (VORTEX 2023), hosted in Seattle (WA), USA, July 18, 2023, co-located with ECOOP/ISSTA 2023.

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 favouring 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, and testing.

The proceedings include one full and three short papers, proposing and discussing original and partially developed contributions on topics relevant for the workshop; all manuscripts underwent a lightweight revision with 3 reviews per paper.

We are grateful to all authors and the PC members who contributed to the success of VORTEX 2023.

Seattle (WA), USA
Davide Ancona, Giorgio Audrito
July 2023
VORTEX 2023 Chairs

VORTEX 2023 Organization

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