


# Benchmarking the Resilience of Self-Adaptive Software Systems

## Perspectives and Challenges

SEAMS'11



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## Benchmarking

technical agreement to experimentally characterize and compare systems or components according to specific characteristics

- Performance benchmarking
- Dependability benchmarking
- Security benchmarking

Resilience Benchmarking

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## Problem: Evaluation and Comparison

How effective is the system in guaranteeing "service delivery that can justifiably be trusted, when facing changes"?

How resilient is the system?

Benchmarking Resilience of Self-adaptive Systems

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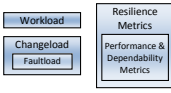
evaluating their capability of (effective) self-adaptation, and its impact on the service provided

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## Research Challenges

- Define key benchmark elements
  - Metrics (service and adaptivity related)
  - Workload
  - Changeload (faultload, variations in available resources, fluctuations on service demand, etc.)
- Define a benchmarking procedure
- Assure validation of the benchmark properties

**Resilience Benchmark**



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## Questions & Answers

Q & A

Thank You!

Check my poster on Thursday ☺

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