First Joint WOSP/SIPEW

SIPEW 2010

International Conference on Performance Engineering
San Francisco Bay Area, USA January 28-30, 2010

http://www.wosp-sipew.org

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The goal of the 1st Joint WOSP/SIPEW International Conference on Performance Engineering is to provide a forum for ideas in performance engineering of software and systems, including performance measurement, modeling, benchmark design, and run-time performance management. WOSP/SIPEW is established as a joint meeting of the ACM Workshop on Software and Performance (WOSP) and the SPEC International Performance Evaluation Workshop (SIPEW).

Since its inception in 1998, WOSP has brought together software engineers, developers, performance analysts and software/performance modelers who are addressing the challenges of increasing system complexity, rapidly evolving software technologies, short time to market, incomplete documentation, and less-than-adequate methods, models and tools for developing, modeling, and measuring scalable, high-performance software. The focus of WOSP is therefore in the intersection of software and performance, rather than one discipline in isolation.

SIPEW was established by the Standard Performance Evaluation Corporation (SPEC) with the goal to bridge the gap between theory and practice in the field of system performance evaluation by providing a forum for sharing ideas and experiences between industry and academia. The workshop brings together researchers and industry practitioners to share and present their experiences, discuss challenges, and report state-of-the-art and in-progress research in all aspects of performance evaluation.

The conference is co-located with the SPEC Annual Meeting 2010 which will be attended by numerous representatives from across the hardware and software industry. This will provide a unique opportunity for researchers to meet with industry practitioners.

Topics of interest include, but are not limited to:
Performance modeling of software
 * Languages and ontologies
 * Methods and tools
 * Composing models
 * Capturing user behavior
Performance measurement and analysis
 * Software performance testing
 * Application performance measurement and monitoring
 * Analysis of measured application performance data
Performance and other quality attributes
 * Relationship/integration/tradeoffs with other QoS attributes
 * Relationship/integration/tradeoffs with cost and schedule
Performance and development processes
 * Software performance patterns and anti-patterns
 * Software/performance tool interoperability (models and data interchange formats)
 * Performance-oriented design, implementation and configuration management
 * Software Performance Engineering and Model-Driven Development
 * Gathering, interpreting and exploiting software performance annotations and data
Performance modeling methodologies
 * Analytical, simulation and statistical modeling methodologies
 * Model validation and calibration techniques
 * Performance modeling and analysis toolS
Model-driven performance testing, measurement, and experimental design
Model-driven performance requirements engineering
Benchmarking
 * Performance metrics and benchmark suites
 * Benchmarking methodologies
 * Development of parameterizable, flexible benchmarks
 * Use of benchmarks in industry and academia

Workload characterization and experimental performance evaluation
 * Workload characterization techniques
 * Application tracing and profiling
 * Performance tuning and optimization
 * Tools for performance measurement, profiling and tuning
Run-time performance management
 * Use of models at run-time
 * Online performance prediction
 * Autonomic resource management
 * Utility-based optimization
Performance evaluation in different environments and application domains, including, but not limited to:
 * Service-oriented architectures (SOA)
 * Web-based systems, e-business, Web services
 * Transaction-oriented systems
 * Virtualization platforms
 * Communication networks
 * Parallel and distributed systems
 * Embedded and autonomous systems
 * Cluster and grid computing environments
 * High performance computing
 * Event-based systems
 * Real-time and multimedia systems
 * Peer-to-peer, mobile and wireless systems
Power and performance, energy efficiency

IMPORTANT DATES
Paper & Tutorial Proposals Submission: July 7, 2009
Author Notification: September 3, 2009
Final Manuscript: October 5, 2009
Advanced Registration: December 31, 2009

Sponsored by ACM SIGSOFT and ACM SIGMETRICS in cooperation with and with the generous support of SPEC

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