



CALL FOR PAPERS

The 19th European Performance Engineering Workshop (EPEW 2023) *Florence - 20-23 June, 2023*

EPEW and ASMTA are flagship conferences for academic and industrial researchers from diverse fields with common interest in the performance modeling, analysis and design of stochastic systems. This year, the two conferences join again (and also join, again for ASMTA, with the International ECMS conference on Modelling and Simulation, ECMS 2023), and solicit papers on the development of broadly applicable analytic, simulation and measurement-based methods on all aspects of performance engineering.

EPEW is an annual event that aims to gather researchers from both the academia and industrial world working on all aspects of performance modeling and analysis. The concept of performance in EPEW 2023 is considered in its broadest sense including the notions of Quality of Service, scalability as well as reliability, availability and systems management, among the others. Therefore, of particular interest are the ideas introducing new methods for evaluating complex systems, as well as innovative applications of methodologies and known techniques to the latest generation of systems, networks and computer-based services. EPEW 2023 seeks papers based on performance evaluation of systems from theoretical and practical viewpoints. Application of performance evaluation techniques to emerging technologies, like cyber-physical systems ranging from mobile devices and Internet-of-Things (IoT), fog and edge computing, applications to large-scale cloud computing systems, smart grids, security infrastructures, are among the topics of interest to EPEW 2023.

The website for EPEW 2023 and ASMTA 2023 is available at <https://asmta2023.sciencesconf.org>, the website for ECMS 2023 is at <https://scs-europe.net/conf/ecms2023/>.

Submission guidelines

Full papers reporting original and unpublished results on EPEW topics are solicited. Submissions should not be under consideration for publication elsewhere while being evaluated for this conference. The proceedings of EPEW and ASMTA are published in the Springer Verlag Lecture Notes in Computer Science (LNCS) series. Submissions may already be prepared in LNCS format and must not exceed 15 pages, including figures, tables, and references; see the information for authors on Springer as web site for formatting instructions (Springer). Please, clearly indicate the corresponding author. Note that authors will be required to sign a copyright release. The paper submission for EPEW 2023 will only be accepted through the EasyChair Paper Submission System (link will be enabled soon). Only papers written in English, conforming to the LNCS format and in PDF will be accepted for reviewing. Submissions as email attachment will not be accepted. Consistent with standard practice, each submitted paper will receive rigorous peer reviewing. Papers will be selected based on their

originality, timeliness, significance, relevance, and clarity of presentation. Submission implies the willingness of at least one of the authors to register and present the paper, if accepted. All accepted papers in the conference are expected to be presented and will be included in the conference proceedings.

Topics of interest

The topics include but are not limited to the following:

- Theoretical advances in performance modeling and evaluation, e.g.:
 - Probabilistic, stochastic, or performability models, such as Queueing Networks, Petri Nets, and Process Calculi;
 - Specification of quantitative properties;
 - Analytical and numerical solution techniques and simulation techniques;
 - Quantitative model checking, equivalence checking, and static analysis;
 - Context-aware modeling and analysis techniques;
 - Machine learning and deep learning-based approaches for performance evaluation and analysis;
 - Multi-formalism and multi-paradigm modeling approaches;
- System, software, and network performance engineering, e.g.:
 - Performance-oriented design, architecture, implementation, deployment, monitoring, and maintenance;
 - Constraint-based and model-driven system design;
 - Performance analysis, simulation, and experimental design;
 - Benchmark design and benchmark-based evaluation and monitoring;
 - Automated interpretation of analysis results;
 - Quality of service, and trade-offs between security, performance, dependability, energy consumption, usability, etc.;
 - Software performance modeling languages, model composition and tool interoperability;
 - 6G and beyond;
- Case studies, e.g.:
 - Cloud systems, Hybrid Cloud, and Fog Computing Internet of Things;
 - Cyber-physical systems;
 - E-health systems;
 - Blockchain and Cryptocurrency applications;
 - Sharing services such as carshare and rideshare;
 - Electric vehicles and battery modeling;
 - Large-scale systems and scalability analysis of systems, robustness analysis of systems, resilience analysis of systems;
 - Industrial case studies, experience reports and tools, with a solid analysis and theoretical background;

Best Paper award

The EPEW 2023 committee will select the best paper award of the conference for which a certificate will be presented at the end of the conference.

Important Dates

Paper Submission deadline: April 14th, 2023

Notification of Acceptance: May 6th, 2023

Camera Ready: June 3rd, 2023

Special Issues

A selection of the best papers presented at EPEW 2023 and ASMTA 2023 will be considered for a submission of extended versions to the ACM Transactions of Modelling and Computer Simulation.

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