CALL FOR PAPERS
The 17th European Performance Engineering Workshop (EPEW 2021)
December 09-10, 2021 - An Online Event

The European Performance Engineering Workshop (EPEW) and the International Conference on Analytical and Stochastic Modelling Modelling Techniques and Applications (ASMTA) are flagship conferences for academic and industrial researchers from diverse fields with common interest on the performance modelling, analysis and design of stochastic systems. This year, the two conferences join, and solicit papers on the development of broadly applicable analytic, simulation and measurement-based methods on all aspects of performance engineering.

EPEW 2021 aims to bring together researchers interested in understanding and improving the performance of systems where the flow of information is random by means of proper modeling and solution methods working on real-world or realistic applications of the methods applied in stochastic modeling, and on theoretical aspects arising as solutions to needs emerging from the study of real-world or realistic cases, across a broad spectrum of research fields. EPEW specially focuses on the application of methods to concrete applications, by paying attention to the choice of the parameters which must be close to concrete cases: it seeks papers to promote research results in the development and analysis of stochastic models arising among others in communication systems, manufacturing, production, service operations, supplychain/inventory management, and biological systems. Its scope includes both methodological and computational advances, with special interest in contributions that present novel solutions, including approaches based on novel tools, to real-world or realistic cases and related analysis or that present interesting and new design, assessment or performance evaluation solutions on new paradigmatic cases and problems, by means of methods meant to predict and efficiently design stochastic systems.

Publication.
EPEW 2021 proceedings will be published as a Springer Verlag volume of the Lecture Notes in Computer Science (LNCS) series (see submission guidelines below).

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Full papers reporting original and unpublished results on Epew topics are solicited.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 will be 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 2021 will only be accepted through the Easychair Paper Submission System (link will be enabled soon). Only papers in PDF will be accepted for reviewing. Submissions as e-mail 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.

Best Paper award.
The EPEW 2021 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 : June 15th, 2021**

- **Notification of Acceptance : July 27th, 2021**

- **Camera Ready : September 3rd, 2021**

Special Issues.
Extended versions of the best papers will be considered for fast-track publication in the Elsevier **Performance Evaluation** (PEVA) journal as well as in the ACM **Transactions on Modeling and Performance Evaluation of Computing Systems** (TOMPECS) journal.

List of Topics.
Theoretical advances in performance modeling and evaluation

- 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 modelling and analysis techniques

- Machine learning and deep learning based approaches for performance evaluation and analysis

- Multiformalism and Multiparadigm modeling approaches

System, software, and network performance engineering

- Performance-oriented design, architecture, implementation, deployment, monitoring, and maintenance

- Performance analysis, simulation, and experimental design

- Benchmark design and benchmark-based evaluation and monitoring

- Automated interpretation of analysis results

- Quality of service, and trade-off between security, performance, dependability, energy consumption, usability, etc.

- Software performance modeling languages, model composition and tool interoperability

Applications, case studies

- Cloud systems, Hybrid Cloud, Fog and Computing Continuum

- Internet of Things

- Cyber-physical systems

- E-health systems

- 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

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