

18th European Performance Engineering Workshop (EPEW 2022)

Santa Pola, Alicante (Spain)
September, 21-23, 2022



Call for Papers

The European Performance Engineering Workshop is an annual event that aims to gather academic and industrial researchers working on all aspects of performance engineering.

EPEW 2022 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 modelling and solution methods working on real-world or realistic applications of the methods applied in stochastic modelling, 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, supply chain/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.

We invite original papers related to the following areas:

1. Theoretical advances in performance modelling and evaluation, e.g.:

- Probabilistic, stochastic, or performativity 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 modelling approaches

2. 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 modelling languages, model composition and tool interoperability
- 6G challenges and beyond

3. Case studies, e.g.:

- Cloud systems, Hybrid Cloud, Fog, Edge and Computing Continuum
- Internet of Things
- Cyber-physical systems
- E-health systems
- Blockchain and Cryptocurrency applications
- Sharing services such as carshare and rideshare
- Electric vehicles and battery modelling
- 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

<https://epew2022.umh.es/>

Important Dates:

Paper Submission deadline : **May 31st, 2022**

Notification of Acceptance : **July 15th, 2022**

Camera Ready : **September 5th, 2022**



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