

CALL FOR PAPERS

The 18th European Performance Engineering Workshop (EPEW 2022)

September 21-23, 2022.

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.

Publication

EPEW 2022 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Full papers reporting original and unpublished results on EPEW topics are solicited.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 2022 will only be accepted through the EasyChair Paper Submission System (<https://easychair.org/my/conference?conf=epew2022>). 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 in person, 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 2022 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 : May 31st, 2022

Notification of Acceptance : July 15th, 2022

Camera Ready : September 5th, 2022

Special Issues.

Extended versions of the best papers will be considered for fast-track publication in ACM [Transactions on Modeling and Performance Evaluation of Computing Systems](#) (TOMPECS).

List of Topics

Theoretical advances in performance modelling and evaluation

- Probabilistic, stochastic, or performability models, such as Queueing Networks, Petri Nets, Process Algebra 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
- Multi-formalism and Multiparadigm modelling approaches

System, software, and network performance engineering

- 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-off between security, performance, dependability, energy consumption, usability, etc.
- Software performance modelling languages, model composition and tool interoperability
- 6G challenges and beyond

Applications and case studies

- 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

General Chair

Dr Katja Gilly De La Sierra-Llamazares, Universidad Miguel Hernández, Spain

TPC Chair

Dr Nigel Thomas, Newcastle University UK

Local Organisation Committee

Salvador Alcaraz, Pablo Garrido, Cristina Bernad, Pedro J. Roig and Eduardo Lopez, Universidad Miguel Hernández, Spain

Contact All questions about submissions should be emailed to the TPC Chair:

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