

CALL FOR PAPERS
*The 26th International Conference on Analytical & Stochastic Modelling
Techniques & Applications (ASMTA 2021)*
December 13-14, 2021 - An Online Event

Overview

ASMTA and EPEW 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 conference join, and solicit papers on the development of broadly applicable analytic, simulation and measurement-based methods on all aspects of performance engineering.

ASMTA 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. 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. In particular, it aims to bring together researchers working on the theoretical, algorithmic and computational aspects of the methods applied in stochastic models, and on the applications of such methods across a broad spectrum of research fields. The conference is particularly interested in contributions that present new performance evaluation methods/algorithms, or that creatively apply existing methods to predict and efficiently design stochastic systems.

The Website of the conference will be enabled soon.

Submission Guidelines

Full papers reporting original and unpublished results on ASMTA topics are solicited.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 ASMTA 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.

Topics of Interest

The topics include but are not limited to the following:

Performance-Oriented Methodologies:

- Markov Processes
- Queueing Systems and Networks

- Capacity Planning, Resource Allocation, Routing, Scheduling and Quality of Service
- Branching Processes and Epidemic Models
- Game Theory and Stochastic Games
- Reliability Theory
- (Computationally Intensive) Statistical Methods
- Stochastic Control, Decision Processes and Optimization
- Stochastic Geometry
- Stochastic Process Algebras and Petri Nets
- Rare Events and Stochastic Simulation
- Approximations, Bounds and Limits of Stochastic Models
- Reinforcement Learning Techniques for Dynamic Resource Allocation
- Fluid and Diffusion Limits
- Risk Processes
- Random Graphs

Envisaged Application Areas:

- Complex Systems
- Computer and Information Systems
- Workflow Management Systems
- Communication Systems and Networks
- Wireless and Mobile Systems and Networks
- Peer-to-Peer Applications and Services
- Embedded Systems and Sensor Networks
- Storage Systems, Data Centers, Content Delivery, Cloud/Fog/Edge/... Computing and Virtualisation
- Workload Modelling and Characterization
- Road Traffic and Transportation
- Social Networks
- Modelling of Virtualisation
- Energy-Aware Optimisation

- Stochastic Modelling for Systems Biology
- Biologically Inspired Network Design
- Artificial Intelligence and Machine Learning Platforms
- Blockchains and Crypto-Currency
- Network Economics and Platform Designs
- Matching Systems and Sharing Economy

Special Issues

Extended versions of the best papers will be considered for possible fast-track publication in the **ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS)** as well as in the Elsevier **Performance Evaluation (PEVA)** journals. More details will be posted at the ASMTA website soon.

Best paper award

The ASMTA 2021 committee will select the best paper award of the conference for which a certificate will be presented at the end of the conference.

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

Ioannis Dimitriou (idimit@math.upatras.gr)
 Joris Walraevens (Joris.Walraevens@UGent.be)

Important dates

Paper Submission deadline: ~~July, 4, 2021~~ July, 18, 2021

Notification of Acceptance: ~~July, 30, 2021~~ August, 13, 2021

Camera Ready: September, 3, 2021

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