UNIVERSITÄT DES SAARLANDES

MEASUREMENT MODELLING and EVALUATION of COMPUTING SYSTEMS

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Call For Papers

**20th International GI/ITG Conference on
"Measurement, Modelling and Evaluation of Computing Systems"**

MMB 2020
**March 16 – 18, 2020
Saarbrücken, Germany**

GI   **ITG**

www.mmb2020.de

The GI/ITG Technical Committee on "Measurement, Modelling and Evaluation of Computing Systems (MMB)" is the major German forum covering all scientific aspects of measurement, modelling and evaluation of intelligent systems including computer architectures, communication networks, distributed systems and software, autonomous systems, workflow systems, cyber-physical systems and networks, internet-of-things, as well as highly dependable, highly performant and highly secure systems. In 2020 the committee invites to its 20th international conference, **MMB 2020**. In addition to the scientific programme, this jubilee edition of the conference will comprise invited keynotes, tool presentations, state-of-the-art tutorials, and workshops focusing on hot topics.

Topics of MMB 2020 include:

Models and Methods

→ Quantitative evaluation techniques related to performance, dependability, security, privacy, survivability, real-time constraints, cost, energy-efficiency and combined aspects like performance-security tradeoffs;
→ Testing, measuring, benchmarking, learning, and runtime monitoring of systems and networks;
→ Parameter estimation, model learning, extremal-value and outlier analysis, big data analytics,
→ Queueing models, Markov and non-Markovian models, stochastic concurrency models, fluid models, network calculus, stochastic games, integration of stochastic modeling into formal methods;
→ Simulation techniques including rare event simulation and parallel and distributed simulation;
→ Fault-tolerant and dependable computing, redundancy and fault modelling, fault injection methods;
→ Traffic engineering, network planning and optimization especially for cyber-physical networking;
→ Models, methods and tools for explainable machine learning;

Applications and Case Studies

→ Computer and software architectures, cloud computing, fog and edge computing, pervasive and ubiquitous computing, adaptive and self-organizing systems;
→ Cyber-physical networking, embedded systems, smart environments, internet-of-things;
→ Access, backbone and optical networks, high-speed switching, software-defined networking, mobile and wireless networks, sensor networks, vehicular communication, satellite communication;
→ Peer-to-peer, overlay and information-centric networks, web-based systems, multimedia systems;
→ Critical infrastructures, social networks, power-law and scale-invariant systems, biochemical systems;
→ Green IT, energy-efficient systems, future smart energy networks;
→ Workflow and logistic systems, data warehousing, traffic and transportation systems;
→ Blockchains, network economics, accounting, tariffing, auctions, betting;

Special Foci of MMB 2020

We plan to organize dedicated sessions on
→ Cyber-physical networking
→ Robust machine learning – from evaluation to explanation

Submission Formats

Papers must be unpublished and must not be submitted for publication elsewhere. All papers will be thoroughly reviewed by at least three referees on the basis of their originality and their scientific and practical contribution to the state-of-the-art.

Full papers: Papers must not exceed 15 pages (LNCS style, excluding references).

Practical experience reports and industrial papers: Industrial papers and practical experience reports are much solicited. They should not exceed 8 pages (LNCS style, excluding references).

Tool descriptions: Special sessions will be arranged to present and demonstrate tools relevant to any topic covered by the Call for Papers. Tool descriptions should not exceed five pages (LNCS style, excluding references).

PH.D. track papers: PH.D. students are encouraged to submit a paper on recent achievements. Reports should not exceed 8 pages (LNCS style, excluding references). Such papers are not required to represent original, unpublished work. Such authors can opt out of publication.

The proceedings will be published in the Springer LNCS series.

Full papers are eligible for the MMB 2020 best paper and best student paper awards.

Important Dates   Submission Deadline Extended

Paper Submission:	**Nov. 18, 2019 (AoE) firm**
Author Notification:	**January 10, 2020**
Final Version:	**January 28, 2020**
Conference:	**March 16 – 18, 2020**

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