

Preface

Welcome to the proceedings of QEST 2017, the 14th International Conference on Quantitative Evaluation of Systems. QEST is a leading forum on quantitative evaluation and verification of computer systems and networks, through stochastic models and measurements. This year's QEST was held in Berlin, Germany, and collocated with the 28th Conference on Concurrency Theory (CONCUR 2017), the 15th International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS 2017), and the 14th European Performance Engineering Workshop (EPEW 2017).

As one of the premier fora for research on quantitative system evaluation and verification of computer systems and networks, QEST covers topics including classic measures involving performance and reliability, as well as quantification of properties that are classically qualitative, such as safety, correctness, and security. QEST welcomes measurement-based studies as well as analytic studies, diversity in the model formalisms and methodologies employed, as well as development of new formalisms and methodologies. QEST also has a tradition in presenting case studies, highlighting the role of quantitative evaluation in the design of systems, where the notion of system is broad. Systems of interest include computer hardware and software architectures, communication systems, embedded systems, infrastructural systems, and biological systems. Moreover, tools for supporting the practical application of research results in all of the aforementioned areas are also of interest to QEST. In short, QEST aims to encourage all aspects of work centered around creating a sound methodological basis for assessing and designing systems using quantitative means.

This year's edition of QEST comes with the novelty of special sessions on frontier topics in the current research landscape. The two topics selected this year are Smart Energy Systems over the Cloud and Machine Learning and Formal Methods.

The Program Committee (PC) consisted of 33 experts and we received a total of 58 submissions. Each submission was reviewed by three reviewers, either PC members or external reviewers. Based on the reviews and the PC discussion phase, 20 full papers and 4 tool demonstration papers were selected for the conference program. The two special topics, Smart Energy Systems over the Cloud and Machine Learning and Formal Methods, attracted several submissions, leading to two special sessions of three papers each.

The program was greatly enriched with the QEST keynote talk of Romualdo Pastor-Satorras (University of Catalunya, Spain), a joint keynote talk with Formats 2017 of Morten Bisgaard (GomSpace, Denmark) and the joint keynote talk with Concur 2017 and Formats 2017 of Hongseok Yang (University of Oxford, UK). We believe the overall result is a high-quality conference program of interest to QEST 2017 attendees and other researchers in the field.

We would like to thank a number of people. Firstly, thanks to all the authors who submitted papers, as without them there simply would not be a conference. In addition, we would like to thank the PC members and the additional reviewers for their hard

work and for sharing their valued expertise with the rest of the community, as well as EasyChair for supporting the electronic submission and reviewing process. We are also indebted to Alfred Hofmann and Anna Kramer for their help in the preparation of this LNCS volume, and we thank Springer for kindly sponsoring the prize for the best paper award. Also thanks to the Local Organization Chair and General Chair, Katinka Wolter, for her dedication and excellent work. Finally, we would like to thank Jane Hillston, chair of the QEST Steering Committee, for her guidance throughout the past year, as well as the members of the QEST Steering Committee.

We hope that you find the conference proceedings rewarding and will consider submitting papers to QEST 2018.

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