Preface

Welcome to the proceedings of QEST 2016, the 13th 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. QEST was first held in Enschede, The Netherlands (2004), followed by meetings in Turin, Italy (2005), Riverside, USA (2006), Edinburgh, UK (2007), St. Malo, France (2008), Budapest, Hungary (2009), Williamsburg, USA (2010), Aachen, Germany (2011), London, UK (2012), Buenos Aires, Argentina (2013), Florence, Italy (2014) and, most recently, in Madrid, Spain (2015).

This year's QEST was held in Quebec City, Canada, and colocated with the 27th International Conference on Concurrency Theory (CONCUR 2016) and the 14th International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS 2016).

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 and 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.

The Program Committee (PC) consisted of 30 experts and we received a total of 46 submissions. Each submission was reviewed by three reviewers, either PC members or external reviewers. The review process included a one-week PC discussion phase. In the end, 21 full papers and three tool demonstration papers were selected for the conference program. The program was greatly enriched by the QEST keynote talk of Carey Williamson (University of Calgary, Canada), the joint keynote talk with FORMATS 2016 of Ufuk Topcu (University of Texas at Austin, USA), and the joint FORMATS 2016 and CONCUR 2016 keynote of Scott A. Smolka (Stony Brook University, USA). We believe the overall result is a high-quality conference program of interest to QEST 2016 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 our proceedings chair, Karl Palmskog, and to Alfred Hofmann and Anna Kramer for their help in the preparation of this volume. Thanks also to the Web manager, Andrew Bedford, the local organization chair, and general chair, Josée Desharnais, for their dedication and excellent work. Finally, we would like to thank Joost-Pieter Katoen, chair of the QEST Steering Committee, for his 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 2017.

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