

Preface

This volume contains the proceedings of the 15th International Conference on Runtime Verification (RV 2015), which was held on September 22–25, 2015 at TU Wien, Vienna, Austria.

The RV series is an annual meeting that gathers together scientists from both academia and industry interested in investigating novel lightweight formal methods to monitor, analyze, and guide the execution of programs. The discussion centers around two main aspects. The first is to understand whether the runtime verification techniques can practically complement the traditional methods for proving programs correct before their execution, such as model checking and theorem proving. The second concerns formal methods and how their application can improve traditional ad-hoc monitoring techniques used in performance monitoring, hardware design emulation, etc.

RV started in 2001 as an annual workshop and turned into a conference in 2010. The workshops were organized as satellite events to an established forum, including CAV and ETAPS. The proceedings for RV from 2001 to 2005 were published in the Electronic Notes in Theoretical Computer Science. Since 2006, the RV proceedings have been published in Springer’s Lecture Notes in Computer Science. The previous five editions of the RV conference took place in Malta (2010), San Francisco, USA (2011), Istanbul, Turkey (2012), Rennes, France (2013), Toronto, Canada (2014).

RV 2015 received 45 submissions, from which the Program Committee accepted 15 regular papers, 4 short papers, and 2 tool demonstration papers. All papers received at least 4 reviews. The paper selection process involved extensive discussion among the members of the Program Committee and external reviewers through the EasyChair conference manager. The status of the papers had been decided once a consensus had been reached by the committee.

To complement the contributed papers, we also included in the program three invited lectures by P. Godefroid (Microsoft Research, USA), S. Sankaranarayanan (University of Colorado Boulder, USA), and G. Weissenbacher (TU Wien, Austria), and four tutorials presented during the first day.

RV 2015 also hosted two co-located events: the 5th International Challenge on the Rigorous Examination of Reactive Systems (RERS) and the 2nd International Competition on Runtime Verification (CRV).

We are extremely grateful to the members of the Program Committee and their sub-reviewers for their insightful reviews and discussion. The editors are also grateful to the authors of the accepted papers for revising the papers according to the suggestions of the Program Committee and for their responsiveness on providing the camera-ready copies within the deadline.

We would also like to thank Klaus Havelund and all the members of the RV Steering Committee for their advice on organizing and running the conference.

Special thanks also to the Austrian Association of Computer Science, and in particular, Karin Hiebler and Christine Haas, for their support and valuable assistance with the online registration.

The EasyChair conference management system was used in the submission, review, and revision processes, as well as for the assembly of the symposium proceedings. We thank the developers of EasyChair for this invaluable service. Finally, we thank NVIDIA for providing their equipment as the best paper award.

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