Preface

This volume contains the papers presented at the 8th International Conference on Verified Software: Theories, Tool and Experiments (VSTTE), which was held in Toronto, Canada, during July 17–18, 2016, co-located with the 28th International Conference on Computer-Aided Verification. The final version of the papers was prepared by the authors after the event took place, which permitted them to take feedback received at the meeting into account. VSTTE originated from the Verified Software Initiative (VSI), which is an international initiative directed at the scientific challenges of large-scale software verification. The inaugural VSTTE conference was held at ETH Zurich in October 2005, and was followed by VSTTE 2008 in Toronto, VSTTE 2010 in Edinburgh, VSTTE 2012 in Philadelphia, VSTTE 2013 in Menlo Park, VSTTE 2014 in Vienna, and VSTTE 2015 in San Francisco. The goal of the VSTTE conference is to advance the state of the art through the interaction of theory development, tool evolution, and experimental validation.

The call for papers for VSTTE 2016 solicited submissions describing large-scale verification efforts that involve collaboration, theory unification, tool integration, and formalized domain knowledge. We were especially interested in papers describing novel experiments and case studies evaluating verification techniques and technologies. We welcomed papers describing education, requirements modeling, specification languages, specification/verification, formal calculi, software design methods, automatic code generation, refinement methodologies, compositional analysis, verification tools (e.g., static analysis, dynamic analysis, model checking, theorem proving), tool integration, benchmarks, challenge problems, and integrated verification environments. We received 21 submissions. Each submission was reviewed by at least three members of the Program Committee. The committee decided to accept 12 papers for presentation at the conference. The program also included six invited talks, given by Zachary Tatlock (Washington), Mark Lawford (McMaster), Kristin Yvonne Rozier (Iowa State), Michael Tautschnig (Amazon), and Oksana Tkachuk (NASA Ames). The volume includes abstracts or full-paper versions of some of these talks.

We would like to thank the invited speakers and all submitting authors for their contribution to the program. We are very grateful to our general chair, Temesghen Kahsai, for his tremendous help with organizing this event. We also thank Azadeh Farzan (CAV PC co-chair) and Zak Kinsaid (CAV Workshops chair) for logistical support, and to Natarajan Shankar for his vision for this year’s VSTTE and other events in this series. Last but definitely not least, we thank the external reviewers and the Program Committee for their reviews and their help in selecting the papers that appear in this volume. This volume was generated with the help of EasyChair.

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