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Tests and Proofs

6th International Conference, TAP 2012

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Proceedings

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Preface

This volume contains the proceedings of the 6th International Conference on Tests and Proofs (TAP 2012) held from May 31 to June 1, 2012, in Prague, Czech Republic, as part of the TOOLS Federated Conferences.

TAP 2012 was the sixth event in a series of conferences devoted to the convergence of tests and proofs for developing novel techniques and applications that support engineers in building secure, safe, and reliable systems. While for several decades the proof and test communities were quite distant from each other, there is a recent trend—both in academia and industry—to combine both approaches. This cross-fertilization results, on the one hand, in new insights into the fundamentals of tests and proofs and, on the other hand, to the development of novel techniques that increase the quality of large-scale systems.

The first TAP conference (held at ETH Zurich in February 2007) was an effort to provide a forum for the cross-fertilization of ideas and approaches from the testing and proving communities. For the 2008 edition we found the Monash University Prato Centre near Florence to be an ideal place providing a stimulating environment. The third TAP was again held at ETH Zurich in July 2009. Since 2010, TAP has been co-located with TOOLS, and its instance for 2010 therefore took place at the School of Informatics (E.T.S. de Ingenieria Informatica) of the University of Malaga, while TOOLS 2011 took place once more at ETH Zurich. In 2012, TAP was part of TOOLS again, this time held at the Czech Technical University in Prague.

We wish to sincerely thank all authors who submitted their work for consideration. We received 29 submissions from which we finally accepted 13, after a formal refereeing process requiring at least three reviews from the Program Committee or by a reviewer appointed by the Program Committee. The various selected papers are contributions essentially in the following four themes of research: model-based testing, scenario based-testing, complex data structure generation, and the validation of protocols and libraries. Moreover, we were grateful to host a tutorial on the static analysis platform Frama-C and the concolic test generator Pathcrawler as well as their combination.

We would like to thank the Program Committee members as well as the additional reviewers for their energy and their professional work in the review and selection process. Their names are listed on the following pages. The lively discussions during the paper selection were vital and constructive. We are also very proud that TAP 2012 featured two keynotes by Andreas Kuehlman (Coverity, Inc.) and Corina Pasareanu (NASA). Both are well-accepted experts in the fundamentals and applications of testing and proving techniques. Our thanks go to both of them.

It was a team effort that made the conference so successful. We are grateful to the TAP Conference Chairs Yuri Gurevich and Bertrand Meyer for their support. Moreover, we particularly thank the organizers of the Tools Federated Conferences, Pavel Tvrdik, Michal Valenta, Jindra Vojikova, and Jan Chrastina, from Czech Technical University in Prague, for their hard work and their support in making the conference a success.

March 2012

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