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Pierre Ganty · Michele Loreti (Eds.)

Trustworthy Global Computing

10th International Symposium, TGC 2015
Madrid, Spain, August 31 – September 1, 2015
Revised Selected Papers

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Preface

This volume contains the proceedings of TGC 2015, the 10th International Symposium on Trustworthy Global Computing. The symposium was held in Madrid, Spain, from August 31 to September 1. The TGC Symposium was co-located with CONCUR, QUEST, and FORMATS. Informal pre-symposium proceedings were made available in electronic form to the attendees of the symposium. The papers in this volume were further improved by the authors in response to helpful feedback received at the symposium.

The Symposium on Trustworthy Global Computing is an international annual venue dedicated to safe and reliable computation in the so-called global computers, i.e., those computational abstractions emerging in large-scale infrastructures such as service-oriented architectures, autonomic systems, and cloud computing. The TGC series focuses on providing frameworks, tools, algorithms, and protocols for designing open-ended, large-scaled applications and for reasoning about their behavior and properties in a rigorous way. The related models of computation incorporate code and data mobility over distributed networks that connect heterogeneous devices and have dynamically changing topologies.

The first TGC event took place in Edinburgh in 2005, with the co-sponsorship of IFIP TC-2, as part of ETAPS 2005. TGC 2005 was the evolution of the previous Global Computing I workshops held in Rovereto in 2003 and 2004 (see LNCS vol. 2874) as well as of the workshops on Foundation of Global Computing held as satellite events of ICALP and CONCUR (see ENTCS vol. 85). Four editions of TGC were co-located with the reviews of the EU-funded projects AEOLUS, MOBIUS, and SENSORIA within the FP6 initiative. They were held in Lucca, Italy (TGC 2006, LNCS vol. 4661); in Sophia Antipolis, France (TGC 2007, LNCS vol. 4912); in Barcelona, Spain (TGC 2008, LNCS vol. 5474); and in Munich, Germany (TGC 2010, LNCS vol. 6084). Further editions of TGC were held in Aachen, Germany (TGC 2011, LNCS vol. 7173), Newcastle upon Tyne, UK (TGC 2012, LNCS vol. 8191), Buenos Aires (TGC 2013, LNCS vol. 8358), and Rome (TGC 2014, LNCS vol. 8358). TGC 2015 solicited contributions in all areas of global computing, including (but not limited to) languages, semantic models, and abstractions; security, trust, and reliability; privacy and information flow policies; algorithms and protocols; resource management; model checking, theorem proving, and static analysis; and tool support.

The fruitful collaboration with CONCUR, initiated in 2013, was continued this year allowing for concurrent submissions to CONCUR and TGC, with the reviewing schedule of TGC slightly delayed with respect to that of CONCUR and submissions accepted by CONCUR were automatically withdrawn from TGC. This year there were seven papers concurrently submitted to TGC and CONCUR and 12 papers were submitted only to TGC. As with the last edition, the papers submitted at CONCUR and TGC were also reviewed by the Program Committee of TGC, which was provided with the CONCUR reviews.

The Program Committee selected ten papers to be included in this volume and to be presented at the symposium. The program was structured in four sessions chaired by Lenore Zuck, Giorgio Delzanno, Michele Loreti, and Pierre Ganty. Finally, the TGC program had invited talks by Andrey Rybalchenko (Microsoft Research Cambridge, UK) and, jointly with CONCUR, by Gianluigi Zavattaro (University of Bologna/INRIA, Italy).

We would like to thank the Steering Committee of TGC for inviting us to chair the conference; the members of the Program Committee and external referees for their detailed reports and the stimulating discussions during the review phase; the authors of submitted papers, the invited speakers, the session chairs, and the attendees for contributing to the success of the event. Finally, we thank the providers of the EasyChair system, which was used to manage the submissions.

November 2015

Pierre Ganty
Michele Loreti

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