

## Preface

This volume contains the proceedings of TGC 2013, the 8th International Symposium on Trustworthy Global Computing. The symposium was held in Buenos Aires, Argentina, during August 30–31, 2013. It was co-located with CONCUR, QEST, and FORMATS, as part of the Buenos Aires Concurrency and Dependability Week. Informal pre-proceedings were available in electronic form to the participants. The papers in this volume have been 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 systems. It focuses on frameworks, tools, algorithms, and protocols for open-ended, large-scale systems and applications, and on rigorous reasoning about their behavior and properties. The underlying models of computation incorporate code and data mobility over distributed networks that connect heterogeneous devices, often with 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) and in Newcastle upon Tyne, UK (TGC 2012, LNCS vol. 8191).

TGC 2013 solicited contributions in all areas of global computing, including (but not limited to) theories, languages, models, and algorithms; language concepts and abstraction mechanisms; security, trust, privacy, and reliability; resource usage and information flow policies; software development and software principles; model checkers, theorem provers, and static analyzers.

TGC 2013 carried out a fruitful collaboration with CONCUR 2013. Concurrent submissions to CONCUR and TGC were allowed, with the reviewing schedule of TGC slightly delayed with respect of that of CONCUR. Reviews were shared between CONCUR and TGC. Submissions accepted by CONCUR were automatically withdrawn from TGC. In all, 18 papers were concurrently submitted to CONCUR and TGC, out of which four were accepted by CONCUR and 14 were subject to further evaluation by TGC. Several of the papers rejected by CONCUR were found suitable for TGC, in part because of differences in evaluation criteria, and in part because the

timeline of TGC gave authors several additional months to produce final versions of their work.

In addition to those concurrent submissions, TGC 2013 received 15 TGC-only submissions. In order to guarantee the fairness and quality of the selection process, each submission received at least three reviews.

The Program Committee selected 15 papers to be included in this volume and be presented at the symposium. The program was structured in sessions named “Security,” “Pi-calculus,” “Information Flow,” “Models,” “Specifications, and Proofs,” and “Quantitative Analysis,” chaired by Ugo Montanari, Mohammad Reza Mousavi, Hernán Melgratti, and Joost-Pieter Katoen.

Additionally, the program included three invited lectures:

- Luca de Alfaro (UC Santa Cruz, USA)
- Nobuko Yoshida (Imperial College London, UK)
- Jane Hillston (University of Edinburgh, UK)

All the invited speakers were encouraged to contribute a paper related to their lectures for these proceedings.

We would like to thank the Steering Committee of TGC for inviting us to chair the conference; the Program Committee members 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. We are also grateful to the providers of the EasyChair system, which was used to manage the submissions; to Microsoft Research, for sponsoring the event; and to Hernán Melgratti, Pedro D’Argenio, and the rest of the organizers of the Buenos Aires Concurrency and Dependability Week.

December 2013

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Trustworthy Global Computing

8th International Symposium, TGC 2013, Buenos Aires,

Argentina, August 30-31, 2013, Revised Selected

Papers

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2014, X, 331 p. 60 illus., Softcover

ISBN: 978-3-319-05118-5