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Preface

The 11th International Conference on Software Composition (SC 2012) provided researchers and practitioners with a unique platform to present and discuss challenges of how composition of software parts may be used to build and maintain large software systems. Co-located with the TOOLS 2012 Federated Conferences in Prague, SC 2012 built upon a history of a successful series of conferences on software composition held since 2002 in cities across Europe.

We received 42 submissions co-authored by researchers, practitioners, and academics from over 20 countries. Each paper was peer-reviewed by at least three reviewers, and discussed by the Program Committee. Based on the recommendations and discussions, we accepted 12 papers, leading to an acceptance rate of 28.6%.

Besides these technical papers, we are excited to have won Uwe Assmann and Mehdi Jazayeri as keynote speakers for SC 2012, who shared their insights on aspects of software composition with the combined SC 2012 and TOOLS 2012 audience.

We are grateful to the members of the Program Committee and the external reviewers for helping us to seek submissions and provide valuable and timely reviews. Their efforts enabled us to put together a high-quality technical program for SC 2012. We are indebted to the local arrangements team of TOOLS 2012 for the successful organization of all conference and social events. The SC 2012 submission, review, and proceedings process was extensively supported by the EasyChair Conference Management System. We also acknowledge the prompt and professional support from Springer, who published these proceedings in printed and electronic volumes as part of the Lecture Notes in Computer Science series. Finally, we would like to thank our sponsors adesso AG and AOSD Europe for their generous support of this conference.

Most importantly, we would like to thank all authors and participants of SC 2012 for their insightful works and discussions!

May 2012

Thomas Gschwind
Flavio De Paoli
Volker Gruhn
Matthias Book
# Organization

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**Mehdi Jazayeri** is professor of computer science and founding dean of the Faculty of Informatics at the University of Lugano. From 1994 through 2007, he was also professor of computer science and head of the Distributed Systems Group at the Technical University of Vienna. He is interested in programming, software engineering, programming languages, and distributed systems. He has worked at both technical and management capacities at Hewlett-Packard Laboratories, Palo Alto, Synapse Computer Corporation, Ridge Computers, and TRW Vidar. He spent two years in Pisa, Italy, to set up and manage a joint research project on parallel systems between Hewlett-Packard and the University of Pisa. He has been an assistant professor of computer science at the University of North Carolina at Chapel Hill, adjunct professor at Georgia Institute of Technology, University of Santa Clara, and San Jose State University. He was a Fulbright Scholar at the University of Helsinki (1979) and a visiting professor at the Politecnico di Milano (1988). He was a principal investigator on several European projects dealing with software architectures and advanced distributed systems.

Mehdi Jazayeri was named an IEEE Fellow in 2007. He is also a Member of ACM, the Austrian, German, and Swiss Computer Societies. He holds degrees from Massachusetts Institute of Technology (SB, 1971) and Case Western Reserve University (MS, 1973; PhD, 1975). He has been a consultant to the US Government and to multinational companies in the areas of software engineering, design, architecture, and processes.

**Uwe Aßmann** holds the Chair of Software Engineering at the Technical University of Dresden. He got a PhD in compiler optimization and a habilitation from Karlsruhe University on “invasive software composition” (ISC), a composition technology for code fragments enabling flexible software reuse. ISC unifies generic, connector-, view-, and aspect-based programming for arbitrary program or modeling languages. The technology is demonstrated by the Reuseware environment, a meta-environment for the generation of software tools (http://www.reuseware.org).

Currently, in the project “Highly Adaptive Energy-Efficient Computing (HAEC)” at TU Dresden, Uwe Aßmann’s group applies ISC to energy-aware autotuning (EAT), a technique to dynamically recompose code adapted to the required quality of service, to the context of the system, and to the hardware platforms. EAT is based on multi-objective optimization (MOO) and always delivers an optimal system configuration with respect to the context parameters. It is a promising technology also for the optimization of other qualities of future cyber-physical systems (CPS).
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