

Preface

This volume contains the papers presented at ICMT 2017: the 10th International Conference on Model Transformation held during July 17–18, 2017, in Marburg, Germany, as part of the STAF 2017 (Software Technologies: Applications and Foundations) conference series. ICMT is the premier forum for researchers and practitioners from all areas of model transformation.

Modeling is key in reducing the complexity of software systems during their development and maintenance. Model transformations elevate models from passive documentation to first-class artifacts of the development process, and play a key role in analyzing models to reveal flaws and in integrating heterogeneous data and tools.

Model transformation includes approaches such as: model-to-text transformation, e.g., to generate code or other textual artifacts from models; text-to-model transformations, e.g., to derive models from structured text such as legacy code; and model-to-model transformations, e.g., to normalize, weave, analyze, optimize, simulate, and refactor models, as well as to translate between modeling languages.

Model transformation encompasses a variety of technical spaces including modelware, grammarware, dataware, and ontoware; a variety of model representations, e.g., based on different types of graphs; and a variety of transformation paradigms including rule-based transformations, term rewriting, and model manipulation using general-purpose programming languages.

The study of model transformation includes foundations, structuring mechanisms and properties (e.g., modularity, composability, reusability, and parameterization of transformations), transformation languages, techniques, and tools. An important goal of the field is the development of high-level model transformation languages, providing transformations that are amenable to higher-order model transformations and analysis mechanisms, or tailored to specific transformation problems. The efficient execution of model queries and transformations by scalable transformation engines on top of large graph data structures is also a key challenge in different application scenarios. Novel algorithms as well as innovative (e.g., distributed) execution strategies and domain-specific optimizations are sought in this respect. Model transformations have become artifacts that need to be managed in a structured way, resulting in developing methodology and tools to deal with versioning, (co-)evolution, etc. Correctness of model transformations has to be guaranteed as well.

This year ICMT 2017 received 31 submissions. Each submission was reviewed by three Program Committee members. After an online discussion period, the Program Committee accepted ten full papers and two short papers as part of the conference program. These papers included regular research, application, and tool demonstration papers presented in the context of four sessions on model transformation languages, model transformation tools, developing model transformations, applications of model transformations, and the future of the field.

A lot of people contributed to the success of ICMT 2017. We are grateful to the Program Committee members and reviewers for the timely delivery of thorough reviews and constructive discussions under a very tight review schedule. We also thank our keynote speaker, Ramon Schiffelers, for his excellent talk on the use of model transformations in an industrial context. Last but not least, we would like to thank the authors, who constitute the heart of the model transformation community, for their enthusiasm and hard work.

The organization of STAF made for a successful conference. We thank the local organizers, and in particular the general chair, Gabriele Taentzer, and the local chair, Christoph Bockisch, for their hard work; and we thank Philipps-Universität Marburg for hosting us.

July 2017

Esther Guerra
Mark van den Brand



<http://www.springer.com/978-3-319-61472-4>

Theory and Practice of Model Transformation
10th International Conference, ICMT 2017, Held as Part
of STAF 2017, Marburg, Germany, July 17-18, 2017,
Proceedings
Guerra, E.; van den Brand, M. (Eds.)
2017, XIV, 183 p. 73 illus., Softcover
ISBN: 978-3-319-61472-4