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Preface

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Preface

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This volume contains the post-proceedings of the International Workshop on Graph Transformation and Visual Modeling Techniques (GT-VMT '12), held in Tallinn, Estonia on 24th-25th March 2012, as part of the European Joint Conferences on Theory and Practice of Software (ETAPS 2012).

GT-VMT 2012 was the eleventh workshop of a series that serves as a forum for all researchers and practitioners interested in the use of visual notations (especially graph-based), techniques and tools for the specification, modeling, validation, manipulation and verification of complex systems. The aim of the workshop series is to promote engineering approaches that provide effective sound tool support for visual modeling languages, enhancing formal reasoning at the syntactic as well as semantic level (e.g., for model specification, model analysis, model transformation, and model consistency management) in different domains, such as UML, Petri Nets, Graph Transformation or Business Process/Workflow Models.

This year's workshop had a special theme of constraints, and we particularly encouraged submissions that focussed on visual/graph constraints, ranging from underlying theory through to their utility in complex system specification, validation and verification. Contributions to GT-VMT 2012 were sought in the following areas: visual languages definition and syntax; static and dynamic semantics of visual languages; visual/graph-based analysis in software engineering; visual/graph constraints; model transformations and their application in model-driven development; visual modeling techniques and graph transformation applied to patterns; case studies and novel application areas; tool support and efficient algorithms.

We received 23 abstracts, followed by 22 paper submissions. The submissions provide evidence of collaborative international interest in the subject, with submissions from 48 different authors, across 14 different countries. The papers were each reviewed by three programme committee members, and we accepted 9 out of 22 papers (41%) for publication in the proceedings. Based on the reviews, a further 4 papers were conditionally accepted, meaning that they were to be presented at the workshop and appear in the pre-workshop proceedings, but required a further review to determine acceptance or rejection in the post-proceedings. This permitted the authors a chance to present their work at the workshop, and update their paper further, whilst enabling the reviewers the opportunity to confirm that their concerns in the original submission are suitably addressed. This makes the workshop more inclusive, whilst retaining the high quality of papers in the final publication. Subject to the further round of review, the four conditionally accepted papers were accepted for publication.

The programme consisted of an interesting range of papers varying from testing and verification in model-driven engineering, the role of constraints, patterns or graph properties for visual modeling and analysis, to scalability and expressiveness issues for graph transformation and its analysis techniques. In addition, we were fortunate in having two keynote speakers who have been influential in both the area and the workshop series. Our opening keynote was given by

Gabriele Taentzer, who is Professor for Software Engineering at the Faculty of Mathematics and Computer Science of the Philipps-Universität Marburg in Germany, speaking on “Generation of Meta Model Instances”. Our closing keynote, which was a joint keynote with the First International Workshop on Bidirectional Transformations (BX 2012), was given by Juan de Lara, who is associate professor at the Department of Computer Science at the Universidad Autónoma in Madrid (UAM), speaking on “Bidirectional Transformation with Graphical Constraints”.

Subsequent to the workshop, both of the invited speakers were invited to submit an article on their topic and their invited papers appear in these proceedings, having been subject to a light review process. Furthermore, the two best papers (as ranked by the reviewers) have been invited to submit significantly extended versions of their work to a special issue of the Journal of Visual Languages and Computing on the topic of Graph Transformations and Visual Modeling Techniques.

As anyone who has organised such a meeting knows, success depends on many people. We wish to thank the members of the Programme Committee and the additional reviewers, who, despite being given a short time to complete their tasks, provided prompt and helpful feedback; extra gratitude goes to the PC who took on the additional responsibility of session chairing: Arend Rensink, Emilio Tuosto, Artur Boronat, Reiko Heckel and Mark Minas. Thanks are also due to the ETAPS 2012 organisers for providing the opportunity to run GT-VMT 12. We are grateful to the editors Tiziana Margaria, Julia Padberg, and Gabriele Taentzer of ECEASST for providing the opportunity to publish the post-proceedings. Finally, we wish to thank the GT-VMT 12 paper authors and presenters, without whom there would have been no workshop.

Andrew Fish and Leen Lambers

June 2012

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