## Proceedings

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# VaMoS 2017

Eleventh International Workshop on Variability Modelling of Software-intensive Systems

> Eindhoven, The Netherlands 1–3 February, 2017

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## Foreword

This volume contains the proceedings of the 11th International Workshop on Variability Modelling of Software-intensive Systems (VaMoS 2017), which was hosted at the TU/e Science park of the Eindhoven University of Technology (TU/e) in Eindhoven, The Netherlands, during February 1–3, 2017. The ten previous editions were held in Salvador (2017), Hildesheim (2015), Nice (2014), Pisa (2013), Leipzig (2012), Namur (2011), Linz (2010), Sevilla (2009), Essen (2008), and Limerick (2007).

The VaMoS workshop series aims to bring together researchers from different areas dedicated to mastering variability in order to discuss advantages, drawbacks, and complementarities of various approaches, and to present new results for mastering variability throughout the life cycle of systems, system families, and (software) product lines.

Authors were invited to submit research papers describing novel contributions, problem statements describing open issues of theoretical or practical nature, reports on positive or negative experiences with techniques and tools, surveys or comparative studies investigating pros, cons, and complementarities, research-in-progress reports including research results at a premature stage, data papers presenting interesting and important data sets to the community, case studies or empirical studies, tool papers or demonstrations, and vision papers. The topics of interest included the following aspects of variability modelling of software-intensive systems:

- Variability across the software life cycle
- Measurement, prediction, and modelling of non-functional properties of variable software systems
- Architecture and design of variable software systems
- Formal verification, testing, and debugging of variable software systems
- Refactoring and evolution of variable software systems
- Variability in systems of systems
- Variability mining
- Reverse engineering of variability
- Synthesis in the presence of variability
- Formal reasoning and automated analysis on variability
- Software economic aspects of variability
- Visualisation and management of variability

VaMoS 2017 received 26 submissions. We would like to thank all authors for submitting their papers. All submitted papers underwent a rigorous review process, in which each paper received three reviews. After a careful discussion phase, the international Program Committee decided to accept 10 research papers, two tool papers, and one tool demonstration. These papers cover a wide variety of topics ranging from variability modelling to software product line analysis tools. They also address a couple of interdisciplinary approaches. We thank the Program Committee members and all additional reviewers for their efforts.

The workshop program also featured three keynote speeches: "The New Feature Interaction Challenge" by Sven Apel (University of Passau, Germany), "On Quantitative Requirements for Product Lines" by Axel Legay (INRIA, Rennes, France) and "Variability: The art of (no) change" by Wim Couvenberg (Océ, The Netherlands). Their talks are partially reflected through contributions at the beginning of this volume. We are grateful to these invited speakers for accepting our invitation to address the workshop.

Like the previous VaMoS workshops, also this year's edition was a highly interactive workshop. Each paper presentation was immediately followed by comments from pre-assigned discussants and a plenary discussion. We thank all discussants for their careful preparations and for triggering the discussions.

We would also like to thank the VaMoS 2017 Local Chair, Loek Cleophas, and his team for their support with planning and running the workshop. In particular, we thank Michael Nieke for his help with editing these nice proceedings and Önder Babur for endlessly advertizing the workshop. Finally, we thank the Steering Committee that entrusted us with the workshop organization.

Ina Schaefer General Chair TU Braunschweig, Germany

#### Maurice H. ter Beek & Norbert Siegmund

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