Preface

Executable models have the potential of bringing major benefits to the development of complex systems, as they provide abstractions of complex system behaviors and allow for the performance of early analyses of that behavior. Despite the potential benefits of executable models, there are still many challenges to solve, such as the lack of maturity in the definition of and tooling for executable modeling languages, and the limited experience with executable modeling in much of the software development industry.

The International Workshop on Executable Modeling (EXE) was founded as a forum for researchers and practitioners to discuss challenges of executable modeling, propose potential solutions, and assess and advance the state of the art in executable modeling. This second edition was held as a full-day event of the ACM/IEEE 19th International Conference on Model Driven Engineering Languages and Systems (MODELS) on October 3, 2016 in Saint-Malo, France. Out of fifteen submissions, nine contributions were accepted after a rigorous review process in which each paper was reviewed by three members of the program committee. Four of the accepted contributions are research papers presenting novel and innovative approaches in executable modeling, two are experience reports discussing experiences and lessons learned in the application of executable modeling, one is a tool demonstration, and two are position papers presenting new ideas and early research results on executable modeling. The accepted contributions cover many different aspects of executable modeling including the following:

- engineering methods for executable modeling languages,
- automation techniques for the development of model execution tools,
- customization of executable modeling languages and model execution tools,
- composition, extension, and reuse of executable modeling languages and tools,
- scalability of model execution and execution-based model analysis,
- model execution in the presence of non-determinism and concurrency,
- model execution tools, and
- case studies and experience reports on the adoption of executable modeling.

The workshop’s program comprised a keynote by Stephen Mellor on “Executable Modeling: Retrospective and Prospective”, the presentations of the accepted papers, and a plenary discussion. The slides of all presentations, as well as the results of the plenary discussion are available at the workshop website: [http://www.modelexecution.org/exe2016](http://www.modelexecution.org/exe2016).

We thank the organizers of MODELS 2016 for giving us the opportunity to organize EXE 2016 as part of MODELS 2016 and for their support in the workshop organization. Our special thanks go to the general chairs of MODELS 2016, Benoit Baudry and Benoit Combemale, as well as to the workshop chairs Houari Sahraoui and Manuel Wimmer, whose support was extraordinary. Furthermore, we thank all the presenters and the 35 participants who contributed to the open discussions and made the workshop a lively and successful event. We also want to express our sincere gratitude to Stephen Mellor, who gave us deep insights into his extensive experiences with executable modeling. Lastly, we thank the reviewers and the members of the program committee for their timely and high-quality reviews, and for their inputs to the workshop program.

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