

Preface

This volume contains the proceedings of the 12th International Conference on Formal Aspects of Component Software (FACS 2015), held at the Universidade Federal Fluminense, Niterói, Brazil, during October 14–16, 2015.

Component-based software development proposes sound engineering principles and techniques to cope with the complexity of software systems. However, many challenging conceptual and technological issues remain. The advent of service-oriented and cloud computing has also brought to the fore new dimensions, such as quality of service and robustness to withstand faults. As software applications themselves become components of wider socio-technical systems, further challenges arise from the need to create and manage interactions.

The FACS series of events addresses the application of formal methods in all aspects of software components and services. Formal methods have provided foundations for component-based software development through research on mathematical models for components, composition and adaptation, and rigorous approaches to verification, deployment, testing, and certification.

FACS 2015 received 33 regular paper submissions, each of which was reviewed by at least three reviewers. Based on the reviews and extensive discussions, the program committee decided to accept 15 regular papers. This volume contains the revised versions of the 15 regular papers, as well as invited papers by Martin Wirsing and David Déharbe.

Many colleagues and friends contributed to FACS 2015. We thank Martin Wirsing, David Déharbe, and Renato Cerqueira for accepting our invitations to give invited talks, and the authors who submitted their work to FACS 2015. We are grateful to the members of the program committee for providing timely and insightful reviews as well as for their involvement in the post-reviewing discussions. Finally, we thank Bruno Lopes for his assistance in organizing FACS 2015, and acknowledge partial financial support from CAPES and CNPq.

November 2015

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Formal Aspects of Component Software

12th International Conference, FACS 2015, Niterói,

Brazil, October 14-16, 2015, Revised Selected Papers

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2016, X, 331 p. 118 illus. in color., Softcover

ISBN: 978-3-319-28933-5