

Preface

This volume contains the papers presented at VMCAI 2016, the 17th International Conference on Verification, Model Checking, and Abstract Interpretation, held during January 17–19, 2016, in St. Petersburg, FL, USA, co-located with POPL 2016 (the annual ACM SIGPLAN/SIGACT Symposium on Principles of Programming Languages). Previous meetings were held in Port Jefferson (1997), Pisa (1998), Venice (2002), New York (2003), Venice (2004), Paris (2005), Charleston (2006), Nice (2007), San Francisco (2008), Savannah (2009), Madrid (2010), Austin (2011), Philadelphia (2012), Rome (2013), San Diego (2014), and Mumbai (2015).

VMCAI provides a forum for researchers from the communities of verification, model checking, and abstract interpretation, facilitating interaction, cross-fertilization, and advancement of hybrid methods that combine these and related areas. VMCAI topics include: program verification, model checking, abstract interpretation and abstract domains, program synthesis, static analysis, type systems, deductive methods, program certification, debugging techniques, program transformation, optimization, hybrid and cyber-physical systems.

This year the conference attracted 89 abstract submission leading to 67 full-paper submissions. Each submission was reviewed by at least three Program Committee members. The committee decided to accept 24 papers. The principal selection criteria were relevance, quality, and originality. We are glad to include in the proceedings the contributions of three invited keynote speakers: Peter Müller on “Viper — A Verification Infrastructure for Permission-based Reasoning,” Bryan Parno on “Ironclad — Full Verification of Complex Systems,” and Thomas Reps on “Automating Abstract Interpretation.” We would like to thank them for sharing their insights with us through their talks and articles contributed to the proceedings.

We thank our wonderful Program Committee members and reviewers for their reviews and discussions. Our gratitude goes to the Steering Committee members for their helpful advice and support, in particular to Lenore Zuck and Dave Schmidt for their assistance and invaluable experience with the organization of VMCAI. We would like to thank Annabel Satin for the great help in coordinating the events co-located with POPL 2016. We are indebted to EasyChair for providing us with an excellent conference management system. Finally, we thank our sponsors, Facebook and Microsoft Research, as well as NSF for providing travel grants for students.

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