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Formal Methods: Foundations and Applications

23rd Brazilian Symposium, SBMF 2020
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Proceedings

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Preface

This volume contains the papers presented at the 23rd Brazilian Symposium on Formal Methods (SBMF 2020). The conference was supposed to be held in Ouro Preto, Brazil, during November 25–27, 2020. However, in light of the COVID-19 pandemic, it was replaced by a virtual event only on the same dates.

SBMF is an event devoted to the development, dissemination, and use of formal methods for the construction of high-quality computational systems, aiming to promote opportunities for researchers and practitioners with an interest in formal methods to discuss the recent advances in this area. SBFM is a consolidated scientific-technical event in the software area. Its first edition took place in 1998, reaching the 23rd edition in 2020. The proceedings of the last editions have been published mostly in Springer’s *Lecture Notes in Computer Science* series as volumes 5902 (2009), 6527 (2010), 7021 (2011), 7498 (2012), 8195 (2013), 8941 (2014), 9526 (2015), 10090 (2016), 10623 (2017), and 11254 (2018).

The conference included three invited talks, given by Nikolaj Bjørner (Microsoft Research, USA), Rohit Gheyi (Universidade Federal de Campina Grande, Brazil), and Martin Leucker (University of Lübeck, Germany). A total of 10 papers were presented at the conference and are included in this volume. They were selected from 17 submissions that came from 7 different countries: Brazil, France, Israel, Norway, Portugal, the UK, and the USA. The Program Committee comprised 44 members from the national and international community of formal methods. Each submission was reviewed by three Program Committee members (single-blind review). Submissions, reviews, deliberations, and decisions were handled via EasyChair, which provided good support throughout this process.

We are grateful to the Program Committee and to the additional reviewers for their hard work in evaluating submissions and suggesting improvements. We are very thankful to the general chair of SBFM 2020, Rodrigo Ribeiro (Universidade Federal de Ouro Preto, Brazil), who made everything possible for the conference to run smoothly. SBFM 2020 was organized by the Universidade Federal de Ouro Preto (UFOP) and promoted by the Brazilian Computer Society (SBC). We would like to thank Formal Methods Europe (FME) for their sponsorship and Springer for agreeing to publish the proceedings as a volume of *Lecture Notes in Computer Science*. Volker Stolz is grateful to the Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education (DIKU) for support through grant UTF-2018-CAPES-Diku/10001 “Modern Refactoring.”

November 2020

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