This volume contains the papers presented at SBMF 2016: the 19th Brazilian Symposium on Formal Methods. The conference was held in Natal, Brazil, during November 23–25, 2016. The Brazilian Symposium on Formal Methods (SBMF) is an event devoted to the dissemination of the development and use of formal methods for the construction of high-quality computational systems, aiming to promote opportunities for researchers with interests in formal methods to discuss the recent advances in this area. SBMF is a consolidated scientific-technical event in the software area. Its first edition took place in 1998, reaching the 19th edition in 2016. The proceedings of the last editions have been published in Springer’s *Lecture Notes in Computer Science* series as volumes 5902 (2009), 6527 (2010), 7021 (2011), 7498 (2012), 8195 (2013), 8941 (2014), and 9526 (2015).

The conference included two invited talks, given by Augusto Sampaio (UFPE, Brazil) and Michael Leuschel (University of Düsseldorf, Germany), and a tutorial, given by Ana Cristina Vieira Melo (USP, Brazil). A total of 12 papers were presented at the conference and are included in this volume. They were selected from 22 submissions that came from ten different countries: Algeria, Argentina, Brazil, Canada, Equador, Estonia, Finland, Italia, Portugal, South Africa, and Venezuela. The Program Committee comprised 47 members from the national and international community of formal methods. Each submission was reviewed by three Program Committee members. The process of submissions by the authors, paper reviews, deliberations of the Program Committee, as well as proceedings elaboration were all assisted by EasyChair, which provided excellent support for these tasks.

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