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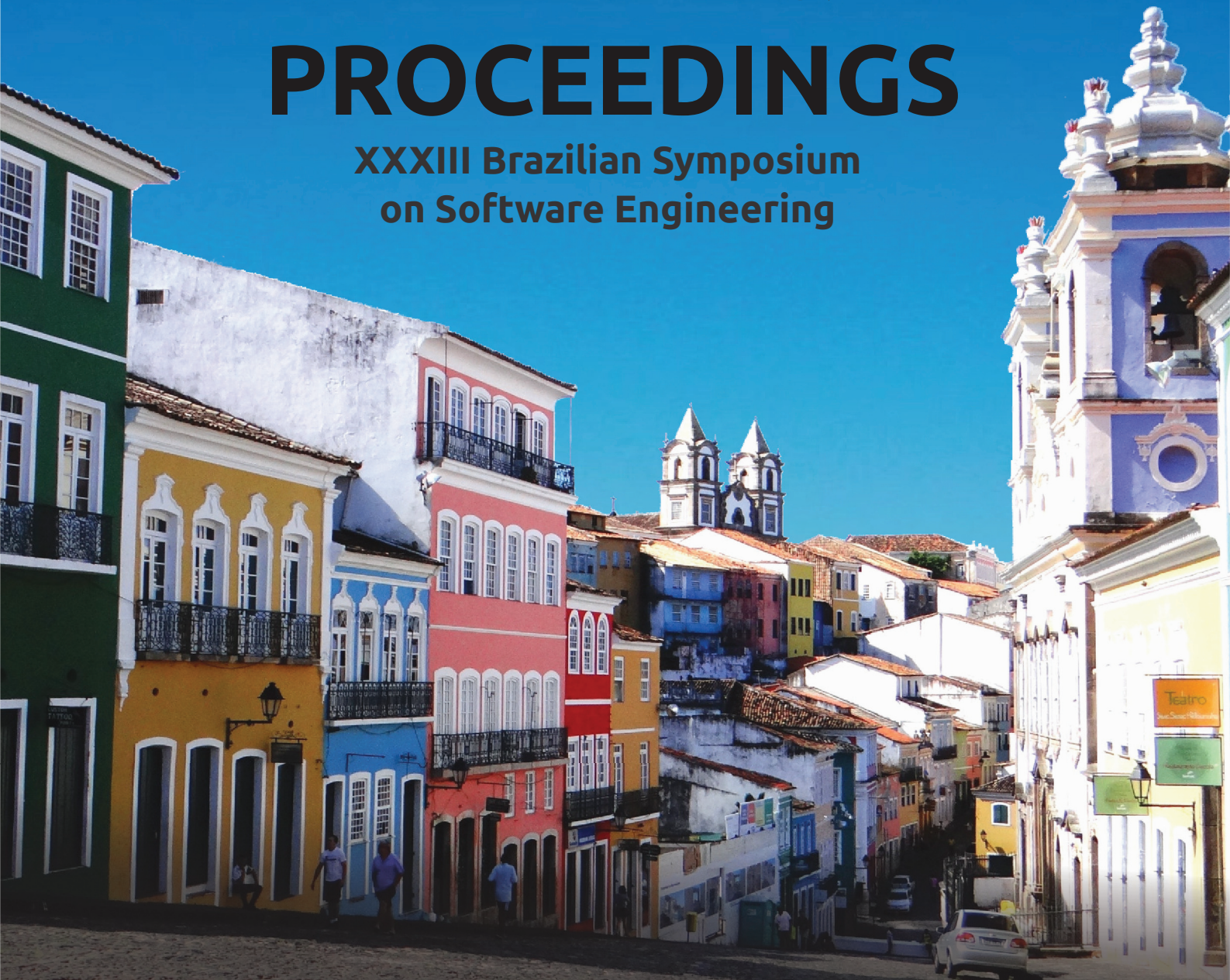
SALVADOR

BRAZILIAN CONFERENCE ON SOFTWARE

23rd - 27th SEPTEMBER, 2019

PROCEEDINGS

XXXIII Brazilian Symposium on Software Engineering



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Foreword

The Brazilian Symposium on Software Engineering (SBES), annually promoted by the Brazilian Computer Society (SBC), is the premier Software Engineering event in Latin America. SBES is held in conjunction with the Brazilian Conference on Software: Theory and Practice (CBSOFT) since 2010. The CBSOFT program includes sessions from several co-located events. It traditionally puts together academics, practitioners and students.

The technical program of SBES 2019 includes papers from the Research, Insightful Ideas and Emerging Results, and Education tracks as well as journal-first articles. The program also includes three keynote speakers: (i) Margaret-Anne Storey (University of Victoria, Canada); (ii) James Herbsleb (Carnegie Mellon University, United States); and (iii) Alessandro Garcia (PUC-Rio, Brazil). All the accepted papers are presented in technical sessions that include papers from all tracks.

The SBES 2019 Research Track focuses on solid results with a strong contribution to the Software Engineering community. Papers on this track are reviewed based on its originality, relevance, technical soundness, and clarity of presentation, and can be analytical, experimental (primary study), literature review (secondary study), technological, or methodological. In addition to the technical papers selected for this track, it also includes journal-first papers published in the IEEE Software magazine and in the Springer Journal of Software Engineering Research and Development. Since 2017, authors of papers published in these venues have been invited to present their research work in the SBES technical sessions. The journal-first papers describe original results that have not been presented in previous conference papers or journals.

The SBES 2019 - Insightful Ideas and Emerging Results Track focuses on new and inspiring ideas with promising future results, as well as on research work in progress with preliminary and interesting results. The track welcomes innovative software engineering approaches – methods, techniques, and tools – in the early stages of research. It has been organized at SBES since 2015.

The SBES 2019 Education Track publishes high-quality papers that address challenges, innovations, and best practices in software engineering education. The track focuses on curriculum development, empirical studies, best practices, personal or institutional experiences, and conceptual or theoretical work about software engineering education. The Education Track aims to be a space in which, through publications, presentations, and discussions of research and reports of experiences, we advance the teaching-learning process of software engineering. This track has been organized since 2017.

The technical program of the SBES 2019 - Research Track includes 28 full research papers and 10 short research papers selected from 97 submissions. The acceptance rate was about 29% for the full research papers. They were selected after a rigorous double-blind review process where each paper was reviewed by three members of the program committee and which also included a rebuttal phase. We thank the very active participation of the 88 program committee members and the 40 additional reviewers. In addition to the accepted papers to the research track, we also accepted 3 journal-first papers - 2 from IEEE Software and 1 from the Journal of Software Engineering Research and Development (JSERD). The invitation and selection of the journal-first papers were conducted with the help of Nicholas A. Kraft (IEEE Software - J1C2 Associate Editor).

The technical program of the Insightful Ideas and Emerging Results Track is composed of 12 research papers selected from 27 valid submissions. The acceptance rate was about 44,4%. Each submitted paper was reviewed by three members of the program committee regarding its novelty, relevance, technical soundness, and clarity of presentation. We thank the 30 program committee members and the additional reviewer for the great dedication to provide detailed feedback to the authors of the submitted

papers.

The Education Track selected 17 papers, including 2 short papers, from 29 submissions. The acceptance rate was about 52% for the full papers. Each submitted paper was reviewed by three members of the program committee regarding its originality, relevance, technical soundness, and clarity of presentation, followed by a rebuttal phase where authors argued for their papers and reviewers revised their assessments and recommendations. We are very grateful to all the 42 program committee members and 10 additional reviewers for their valuable and timely contribution to the reviewing process.

Starting at SBES 2019 we also acknowledge the generosity of the reviewers who give their time and best effort to referee submitted papers. A certificate of Outstanding Reviewer was awarded to three reviewers who submitted outstanding quality reviews to the SBES Research Track. After a careful evaluation based on two criteria (quality and usefulness of reviews, and reviewer active participation during the rebuttal and discussion phases), we are delighted to give the certificate of Outstanding Reviewer to Fernando Castor (UFPE, Brazil), Tayana Conte (UFAM, Brazil), João Paulo Fernandes (Universidade de Coimbra, Portugal), Rick Rabiser (Johannes Kepler University Linz, Austria) and Marcio Ribeiro (UFAL, Brazil).

We would like to thank all who contributed to this event. The quality of the technical program is a result of the dedication of the members of the program committee together with the additional reviewers. We also express our gratitude to the SBES steering committee for their great support. Finally, we also thank the great and hard work of the CBSOft 2019 organization team led by Ivan Machado.

We hope you enjoy the technical program of SBES 2019.

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