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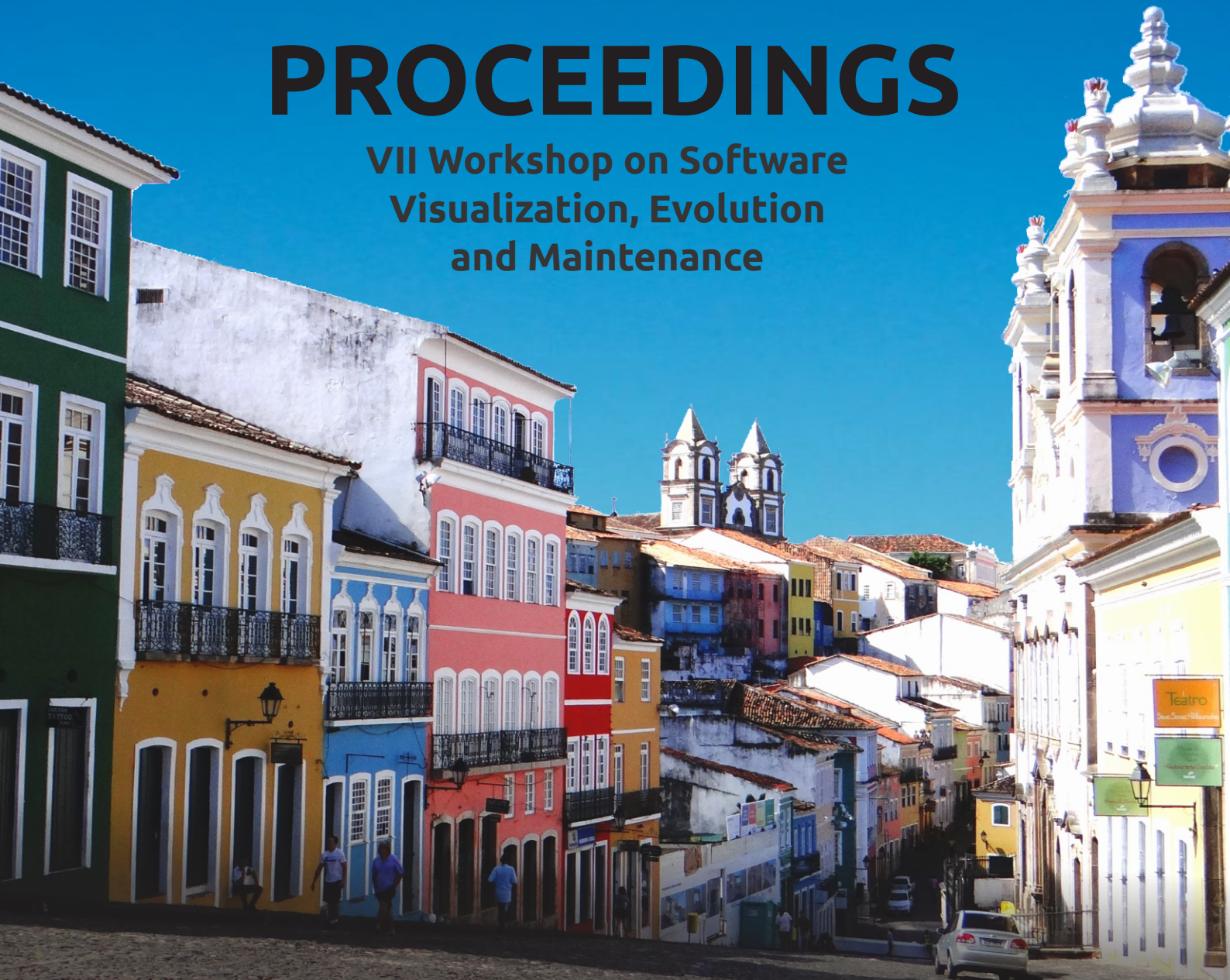
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BRAZILIAN CONFERENCE ON SOFTWARE

23rd - 27th SEPTEMBER, 2019

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VII Workshop on Software Visualization, Evolution and Maintenance



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**VII Workshop on Software
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X Brazilian Conference on Software: Theory and Practice (CBSoft 2019)



VII Workshop on Software Visualization, Evolution and Maintenance

September 23–27, 2019

Salvador, BA, Brazil

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Foreword

The VII Workshop on Software Visualization, Evolution and Maintenance (VEM 2019) is part of the X Brazilian Congress on Software: Theory and Practice (CBSOft 2019), held in Salvador – Bahia, from September 23 to 27, 2019. Its main goal is to foster the integration of the software visualization, evolution and maintenance communities, providing a Brazilian forum where researchers, students and professionals can present their work and exchange ideas on the principles, practices and innovations related to their respective areas of interest. The VEM 2019 Program Committee (PC) is composed of 49 active researchers in the areas of software visualization, evolution and maintenance, who come from several regions of Brazil. The PC members selected 11 interesting and promising papers to be presented at VEM 2019, from a total of 18 submissions. Each submission was evaluated by at least three PC members, based on their originality, technical quality and adequacy to the event’s scope.

In addition, the VEM 2019 technical program also includes two invited keynote talks where the event participants could discuss the main problems and solutions related to software visualization, evolution and maintenance.

Finally, we would like to express our deepest gratitude to all authors who submitted their work to VEM 2019, for their interest, to the PC members, for their effort and invaluable collaboration during the paper selection process, and to the CBSOft 2019 organizers and sponsors, for their support and contribution.

Fernando Castor (UFPE) and Igor Scaliante Wiese (UTFPR)
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Invited Speakers

Christoph Treude



University of Adelaide, Australia

Christoph Treude is an ARC DECRA Fellow and a Senior Lecturer in the School of Computer Science at the University of Adelaide, Australia. He completed his PhD in Computer Science at the University of Victoria, Canada, and spent two years in Brazil as a postdoctoral researcher at DIMAp/UFRN and IME/USP. The goal of his research is to advance collaborative software engineering through empirical studies and the innovation of processes and tools that explicitly take the wide variety of artefacts available in a software repository into account.

Uirá Kulesza



Federal University of Rio Grande do Norte, Brazil

Uirá Kulesza is an associate professor in the Department of Informatics and Applied Mathematics (DIMAp), Federal University of Rio Grande do Norte (UFRN). He received his PhD in computer science from the Pontifical Catholic University of Rio de Janeiro (PUC-Rio) in Brazil, in cooperation with University of Waterloo (Canada) in 2007. He has a PQ-2 research grant from CNPq since 2010. He currently heads the Collaborative & Automated Software Engineering (CASE) Lab and Research Group at Digital Metropolis Institute (IMD), UFRN. His main research interests include software evolution, software architecture, and software analytics.

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Bite-sized software documentation

Christoph Treude

University of Adelaide, Australia

Keynote

Abstract

Software documentation is like farofa in Brazilian cuisine: it is an essential ingredient, it can be a bit dry, and it comes in many different forms. Finding the best parts (i.e., the bacon) can be difficult, and we need tools to uncover them. To help software developers uncover the best parts of software documentation, we are developing approaches to get information to them when and where they need it. This talk will highlight several approaches, including a task-based search interface for software documentation, an approach for improving compiler error messages with content from Stack Overflow, and a badge-generator for sections of GitHub README files. While much of the information needed by software developers is already available somewhere, we still have a long way to go to give developers the best tools for transforming documentation into bite-sized pieces.

Understanding the Impact of Continuous Integration in Open Source Projects

Uirá Kulesza

Federal University of Rio Grande do Norte, Brazil

Keynote

Abstract

Continuous Integration (CI) is the practice of automating and improving the frequency of code integration. Software projects have adopted CI to ship new releases more frequently and to improve code integration. Recent research has analyzed the benefits that CI can bring to open-source projects by using mining software repositories techniques. In this talk, I will present and discuss some results of empirical studies conducted by our research group that analyzed the impact of adopting CI practices on the delivery time of pull requests and in the evolution of automated test artifacts.