Preface to the ICPM 2022 Doctoral Consortium and Tool Demonstration Track

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This volume contains the papers presented at the Doctoral Consortium and the Tool Demonstration Track of the 4th International Conference on Process Mining (ICPM 2022), organized by the Free University of Bozen-Bolzano, Italy.

The Doctoral Consortium aims to provide valuable feedback and guidance to PhD students from experienced researchers, help PhD students to sharpen the answers related to their own research components, and to promote the development of a community of scholars including both peers and mentors for future careers. Each of the 15 received submissions has been evaluated by the committee. As a result, 11 students' research proposals were accepted. The topics covered by these proposals tackle open process mining challenges from different perspectives, spanning over behavioural analysis, explainable and prescriptive process analysis, multimodal process prediction, to blockchain data. The PhD students and senior researchers discussed the presented projects, their directions, methods and plans. In a research speed-dating setting, the PhD students were encouraged to give sharp elevator-pitch answers to seven concrete questions related to their research. The challenges and experiences gathered in the course of a PhD in process mining were also shared by the participants. Based on a voting from the reviewers and the quality of the reflection on feedback in the presentation, a best PhD consortium extended abstract was selected for a 5-minutes presentation in the main conference.

The ICPM 2022 Tool Demonstration Track is intended to showcase innovative process mining tools and applications that originated either in research or as industry initiatives. We received 21 submissions, of which 15 were accepted. Tools covering a broad range of topics where presented in this edition, including among others streaming process mining, visualization

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tools, privacy-aware process mining, event log editing and preparation, and event log rule discovery. The contributions demonstrate how the process mining research community values the implementation of usable applications and tools that go well beyond the proof-of-concept implementation to share their research results. These tools and applications show the support that the process mining research community can offer to researchers, practitioners and industry in the process mining field worldwide.

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