

Sebastiano Panichella - Publication list

REFEREED
JOURNAL
PUBLICATIONS

In papers marked with (*) the authors are listed in alphabetic order.

Journal Publications after the P.h.D.

- [1] Christian Birchler, Sajad Khatiri, Pooja Rani, Timo Kehrer, Sebastiano Panichella: **A Roadmap for Simulation-Based Testing of Autonomous Cyber-Physical Systems: Challenges and Future Direction**. Special issue "A 2030 Roadmap for Software Engineering" in ACM Transactions on Software Engineering and Methodology (TOSEM 2025).
- [2] Sajad Khatiri, Andrea Di Sorbo, Fiorella Zampetti, Corrado A. Visaggio, Massimiliano Di Penta, Sebastiano Panichella: **Identifying Safety-Critical Concerns in Unmanned Aerial Vehicle Software Platforms with SALIENT**. SoftwareX Journal, 2024.
- [3] Pooja Rani, Arianna Blasi, Nataliia Stulova, Sebastiano Panichella, Alessandra Gorla, Oscar Nierstrasz: **A Decade of Code Comment Quality Assessment: A Systematic Literature Review**. Journal of Systems & Software (JSS).
- [4] Xavier Devroey, Alessio Gambi, Juan Pablo Galeotti, Rene Just, Fitsum Kifetew, Annibale Panichella, and Sebastiano Panichella: **JUGE: An Infrastructure for Benchmarking Java Unit Test Generators**. Software Testing, Verification and Reliability.
- [5] Christian Birchler, Sajad Khatiri, Bill Bosshard, Alessio Gambi, Sebastiano Panichella: Machine Learning-based Test Selection for Simulation-based Testing of Self-driving Cars Software. Empirical Software Engineering.
- [6] Christian Birchler, Nicolas Ganz, Sajad Khatiri, Alessio Gambi, Sebastiano Panichella: Cost-effective Simulation-based Test Selection in Self-driving Cars Software. Science of Computer Programming.
- [7] Andrea Di Sorbo, Fiorella Zampetti, Corrado A. Visaggio, Massimiliano Di Penta, Sebastiano Panichella: Automated Identification and Qualitative Characterization of Safety Concerns Reported in UAV Software Platforms. Transactions on Software Engineering and Methodology (TOSEM)
- [8] Zampetti, Fiorella; Tamburri, Damian ; Sebastiano Panichella; Panichella, Annibale; Canfora, Gerardo; Di Penta, Massimiliano: Continuous Integration and Delivery practices for Cyber-Physical systems: An interview-based study. Transactions on Software Engineering and Methodology (TOSEM)
- [9] Annibale Panichella, Sebastiano Panichella, Gordon Fraser, Anand Sawant, and Vincent Hellendoorn: Test Smells 20 Years Later: Detectability, Validity, and Reliability. Empirical Software Engineering (EMSE) Journal.
- [10] Fiorella Zampetti, Ritu Kapur, Massimiliano Di Penta, Sebastiano Panichella, An Empirical Characterization of Software Bugs in Open-Source Cyber-Physical Systems. Journal of Systems and Software (JSS).
- [11] Christian Birchler, Sajad Khatiri, Pouria Derakhshanfar, Sebastiano Panichella, and Annibale Panichella: Single and Multi-objective Test Cases Prioritization for Self-driving Cars in Virtual Environments. ACM Transactions on Software Engineering and Methodology (TOSEM) doi:<https://dl.acm.org/doi/10.1145/3533818>

- [12] Fiorella Zampetti, Saghan Mudbhari, Venera Arnaoudova, Massimiliano Di Penta, Sebastiano Panichella, Giuliano Antoniol: Using Code Reviews to Automatically Configure Static Analysis Tools. *Empirical Software Engineering*.
doi:<https://link.springer.com/article/10.1007/s10664-021-10076-4>
- [13] Pooja Ruhel, Sebastiano Panichella, Manuel Leuenberger, Andrea Di Sorbo, and Oscar Nierstrasz: How to Identify Class Comment Types? A Multi-language Approach for Class Comment Classification. *Journal of Systems and Software*.
doi:<https://doi.org/10.1016/j.jss.2021.111047>
- [14] Sebastiano Panichella, Gerardo Canfora, and Andrea Di Sorbo: "Won't We Fix this Issue?" Qualitative Characterization and Automated Identification of Wontfix Issues on Github. *Information and Software Technology Journal*.
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- [15] Pooja Rani, Sebastiano Panichella, Manuel Leuenberger, Mohammad Ghafari, Oscar Nierstrasz: What do class comments tell us? An investigation of comment evolution and practices in Pharo Smalltalk. *Empirical Software Engineering*.
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- [16] Andrea Di Sorbo and Sebastiano Panichella: Exposed! A Case Study on the Vulnerability-Proneness of Google Play Apps. *Empirical Software Engineering*.
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- [18] Valentina Lenarduzzi, Jeremy Daly, Antonio Martini, Sebastiano Panichella, Damian Andrew Tamburri: Towards a Technical Debt Conceptualization for Serverless Computing. *IEEE Software*.
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- [19] Andrea Di Sorbo, Giovanni Grano, Aaron Visaggio and Sebastiano Panichella: Investigating the Criticality of User Reported Issues through their Relations with App Rating. *Journal of Software: Evolution and Process (JSEP) Journal*.
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- [20] Sebastiano Panichella and Nik Zaugg: An Empirical Investigation of Relevant Changes and Automation Needs in Modern Code Review. *Empirical Software Engineering (EMSE) Journal*.
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- [23] Giovanni Grano, Christoph Laaber, Annibale Panichella, and Sebastiano Panichella: **Testing with Fewer Resources: An Adaptive Approach to Performance-Aware Test Case Generation**. *Transactions on Software Engineering (TSE)*.
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- [25] C. Vassallo, S. Panichella, F. Palomba, S. Proksch, Harald Gall, Andy Zaidman. **How Developers Engage with Static Analysis Tools in Different Contexts**. *Empirical Software Engineering (EMSE)* 2019.
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- [31] A. De Lucia, M. Di Penta, R. Oliveto, A. Panichella, S. Panichella. ***Applying a Smoothing Filter to Improve IR-based Traceability Recovery Processes: An Empirical Investigation**. *Information and Software Technology (INFOSOF)* 2012.
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- [32] A. De Lucia, M. Di Penta, R. Oliveto, A. Panichella, S. Panichella. ***Labeling Source Code with Information Retrieval Methods: An Empirical Study**. *Empirical Software Engineering (EMSE)* 2013. doi:[doi:10.1007/s10664-013-9285-5](https://doi.org/10.1007/s10664-013-9285-5)

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- [34] Christian Birchler, Tanzil Kombarabettu Mohammed, Pooja Rani, Teodora Nechita, Timo Kehrer, Sebastiano Panichella: **How does Simulation-based Testing for Self-driving Cars match Human Perception?.** ACM International Conference on the Foundations of Software Engineering (FSE 2024)
- [35] Nicolas Erni, Al-Ameen, Mohammed, Christian Birchler, Pouria Derakhshanfar, Stephan Lukasczyk, Sebastiano Panichella: **SBFT Tool Competition 2024 – Python Test Case Generation Track.** 17th International Workshop on Search-Based and Fuzz Testing (SBFT) 2024.
- [36] Sajad Khatiri, Prasun Saurabh, Timothy Zimmermann, Charith Munasinghe, Christian Birchler, Sebastiano Panichella: **SBFT Tool Competition 2024 - CPS-UAV Test Case Generation Track.** 17th International Workshop on Search-Based and Fuzz Testing (SBFT) 2024.
- [37] Timo Blattner, Christian Birchler, Timo Kehrer, Sebastiano Panichella: **Diversity-guided Search Exploration for Self-driving Cars Test Generation through Frenet Space Encoding.** Intl. Workshop on Search-Based and Fuzz Testing (SBFT). 2024
- [38] Christian Birchler, Cyrill Rohrbach, Timo Kehrer, Sebastiano Panichella: **SensDat: Simulation-based Sensor Dataset of Self-driving Cars.** Mining Software Repositories (MSR). 2024
- [39] Sajad Khatiri, Sebastiano Panichella, Paolo Tonella: **Simulation-based Testing of Unmanned Aerial Vehicles with Aerialist.** International Conference on Software Engineering. 2024.
- [40] Christian Birchler, Cyrill Rohrbach, Hyeonkyun Kim, Alessio Gambi, Tianhai Liu, Jens Horneber, Timo Kehrer, Sebastiano Panichella: **TEASER: Simulation-based CAN Bus Regression Testing for Self-driving Cars Software..** International Conference on Automated Software Engineering.
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- [41] Sajad Khatiri, Sebastiano Panichella, Paolo Tonella: **Simulation-based Test Case Generation for Unmanned Aerial Vehicles in the Neighborhood of Real Flights.** International Conference on Software Testing, Verification and Validation.
- <https://doi.org/10.1109/ICST57152.2023.00034>
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- [45] Andrea Di Sorbo, Aaron Visaggio, Massimiliano Di Penta, Gerardo Canfora, [Sebastiano Panichella](#): **An NLP-based Tool for Software Artifacts Analysis** *International Conference on Software Maintenance and Evolution* - <https://doi.org/10.1109/ICSME52107.2021.00058>.
- [46] [Sebastiano Panichella](#), Alessio Gambi, Fiorella Zampetti, Vincenzo Riccio: **SBST Tool Competition 2021** *International Conference on Software Engineering Workshops (ICSE 2021)* - doi:10.1109/SBST52555.2021.00011.
- [47] [Sebastiano Panichella](#), Mohammad Imranur Rahman, and Davide Taibi: **Structural Coupling for Microservices** *International Conference on Cloud Computing and Services Science (CLOSER 2021)* <https://www.scitepress.org/Link.aspxdoi:10.5220/0010481902800287>.
- [48] Usman Ashraf, Christoph Mayr-Dorn, Atif Mashkoor, Alexander Egyed, and [Sebastiano Panichella](#): **Do Communities in Developer Interaction Networks align with Sub-system Developer Teams? An Empirical Study of Open Source Systems** *International Conference on Software and System Processes (ICSSP 2021)* - 10.1109/ICSSP-ICGSE52873.2021.00016.
- [49] Mathias Birrer, Pooja Ruhel, [Sebastiano Panichella](#), and Oscar Nierstrasz: **Makar: A Framework for Multi-source Studies based on Unstructured Data** *International Conference on Software Analysis, Evolution and Reengineering (SANER 2021)* <https://ieeexplore.ieee.org/document/9426063>.
- [50] Annibale Panichella, [Sebastiano Panichella](#), Gordon Fraser, Anand Ashok Sawant and Vincent Hellendoorn: **Revisiting Test Smells in Automatically Generated Tests: Limitations, Pitfalls, and Opportunities** *International Conference on Software Maintenance and Evolution (ICSME 2020)* - <https://ieeexplore.ieee.org/document/9240691>.
- [51] Devjeet Roy, Ziyi Zhang, Maggie Ma, Venera Arnaoudova, Annibale Panichella, [Sebastiano Panichella](#), Danielle Gonzalez, Mehdi Mirakhorli: **DeepTC-Enhancer: Improving the Readability of Automatically Generated Tests.** *IEEE/ACM International Conference on Automated Software Engineering* doi:<https://doi.org/10.1145/3324884.3416622>.
- [52] Xavier Devroey, [Sebastiano Panichella](#) and Alessio Gambi: **Java Unit Testing Tool Competition-Eighth Round..** *IEEE/ACM 42nd International Conference on Software Engineering Workshops (ICSE 2020)* - <https://doi.org/10.1145/3387940.3392265>.
- [53] [Sebastiano Panichella](#) and Marcela Ruiz: **Requirements-Collector: Automating Requirements Specification from Elicitation Sessions and User Feedback.** *IEEE International Requirements Engineering Conference (RE'20)*. <https://doi.org/10.1109/RE48521.2020.00057>.
- [54] Usman Ashraf, Christoph Mayr-Dorn, Alexander Egyed, and [Sebastiano Panichella](#): **A Mixed Graph-Relational Dataset of Socio-technical interactions in Open Source Systems.** *Mining Software Repositories (MSR 2020)*. - <https://doi.org/10.1145/3379597.3387492>.

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- [58] Diego Martin, Sebastiano Panichella. **The Cloudification Perspectives of Search-based Software Testing**. *The 12th Int. Workshop on Search-Based Software Testing, 2019* - <https://ieeexplore.ieee.org/document/8812184>.
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- [69] A. Di Sorbo, S. Panichella, C. V. Alexandru, C. A. Visaggio, G. Canfora. **SURF: Summarizer of User Reviews Feedback.** *Demonstrations Track of the 39th International Conference on Software Engineering (ICSE 2017)*. Core RANK: A*.
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- [71] A. Ciurumelea, A. Schaufelbuhl, S. Panichella, Harald Gall. **Analyzing Reviews and Code of Mobile Apps for better Release Planning.** In: *Proceedings of the 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) 2017. Klagenfurt, Austria*.
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