Publication List (2019 — 2023)

Serge Demeyer

November 16, 2023

This document lists the publications (co-)authored by Serge Demeyer spanning the last five years (2019—2023). The list includes those articles which have been accepted for publication on November 2023 (may be scheduled for publication in subsequent years). It also lists the PhDs finished under Serge Demeyer's supervision. The list itself is divided into categories and within each category items are listed in reverse chronological order. Whenever possible a quality indicator is included: for journal papers the SCI impact factor as published in the JCR Science Edition, for conference papers the acceptance ratio.

As far as research impact concerns, an extract of the bibliometric indicators of the ACM and Google Scholar digital library are included. Moreover, the ∗TOP∗ publications are explicitly marked, where the TOP status can be achieved in two ways.

- *Conference Publications:* consulting the rankings of the Computing Research and Education Association of Australasia (CORE) available at http://portal.core.edu.au/conf-ranks/ a conference is marked ∗TOP∗ when it is ranked A∗ (= top 4%) or A (=next 14%).
- *Journal Publications:* consulting the SCI impact factor as published in the JCR Science Edition a journal is marked ∗TOP∗ when it is ranked among the first 10 items in one of the sucategories of "Computer Science" sorted by the 5-Year Impact Factor. In principle, we consult the rankings that year before the article was accepted for publication.
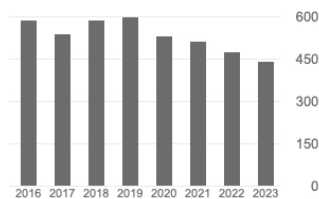
Cited by		VIEW ALL
	All	Since 2018
Citations	11058	3140
h-index	52	27
i10-index	127	76

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h-index of 52 according to Google Scholar.

Figure 1: Bibliometric indicators — Google Scholar (Extract January 7th, 2021)

Classification

- Articles in journals with external refereeing. [1], [2], [3], [4] *(2023)*, [5], [6], [7] *(2022)*, [8] *(2021)*, [9] *(2020)*.

- Articles in conference proceedings with external refereeing. [10] *(2023)*, [11], [12], [13], [14], [15] *(2022)*, [16], [17] *(2021)*, [18], [19], [20] *(2020)*, [21], [22] *(2019)*.

- Invited articles in theme books. [23], [24] *(2023)*.

- Workshop proceedings as editor. [25] *(2022)*, [26] *(2020)*, [27] *(2019)*.

- Workshop Papers, Posters and Reports without External Refereeing.

  [28], [29] *(2023)*, [30], [31] *(2022)*, [32], [33], [34] *(2021)*, [35], [36], [37], [38], [39], [40], [41] *(2020)*, [42], [43], [44], [45], [46] *(2019)*.

- Ph.D. Dissertations (Promotor & Author).

  Promotor: [47], [48], *(2023)*, [49], *(2022)*, [50], [51], *(2019)*.

Publication List

[1] Sten Vercammen, Serge Demeyer, Markus Borg, Niklas Pettersson, and Görel Hedin. Mutation testing optimisations using the Clang front-end. *Software Testing, Verification and Reliability*, October 2023. DOI: 10.1002/stvr.1865.

[2] Gustavo Carro, Olivier Schalm, Patrick Storme, Griet Blanckaert, and Serge Demeyer. Indoor air quality for heritage objects and human health: just a different interpretation of the same measurements? *Air Quality, Atmosphere and Health*, September 2023. DOI: 10.1007/s11869-023-01427-9.

[3] Sten Vercammen, Serge Demeyer, and Markus Borg. F-ASTMut: mutation optimisations techniques using the Clang front-end. *Software Impacts*, 16:100500, March 2023. DOI: 10.1016/j.simpa.2023.100500.

[4] Maxime Gobert, Csaba Nagy, Henrique Rocha, Serge Demeyer, and Anthony Cleve. Best practices of testing database manipulation code. *Information Systems*, 111:102105, January 2023. DOI: 10.1016/j.is.2022.102105.

[5] Mehrdad Abdi, Henrique Rocha, Serge Demeyer, and Alexandre Bergel. Small-amp: Test amplification in a dynamically typed language. *Empirical Software Engineering*, 27(128), July 2022. DOI: 10.1007/s10664-022-10169-8.

[6] Ebert Schoofs, Mehrdad Abdi, and Serge Demeyer. Ampyfier: Test amplification in python. *Journal of Software: Evolution and Process*, page e2490, July 2022. DOI: https://doi.org/10.1002/smr.2490.

[7] Gustavo Carro, Olivier Schalm, Werner Jacobs, and Serge Demeyer. Exploring actionable visualizations for environmental data: Air quality assessment of two belgian locations. *Environmental Modelling and Software*, 147:105230, January 2022. DOI: 10.1016/j.envsoft.2021.105230.

[8] Brent van Bladel and Serge Demeyer. A comparative study of test code clones and production code clones. *Journal of Systems and Software*, 176:110940, June 2021. DOI: 10.1016/j.jss.2021.110940.

[9] Ali Parsai and Serge Demeyer. Comparing mutation coverage against branch coverage in an industrial setting. *International Journal on Software Tools for Technology Transfer*, May 2020. DOI: 10.1007/s10009-020-00567-y.

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[11] *TOP* [A* in CORE2021]. Poedjadevie Kadjel Ramkisoen, John Businge, Brent Van Bradel, Alexandre Decan, Serge Demeyer, Coen De Roover, and Foutse Khomh. Pareco: Patched clones and missed patches among the divergent variants of a software family. In *Proceedings ESEC/FSE 2022 (ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering)*, 2022.

[12] Mehrdad Abdi and Serge Demeyer. Test transplantation through dynamic test slicing. In *Proceedings SCAM 2022 (22nd IEEE International Working Conference on Source Code Analysis and Manipulation)*, oct 2022.

[13] Igor Schittekat, Mehrdad Abdi, and Serge Demeyer. Can we increase the test-coverage in libraries using dependent projects' test-suites? In *Proceedings EASE 2022 (The International Conference on Evaluation and Assessment in Software Engineering)*, pages 294–298, New York, NY, USA, 2022. Association for Computing Machinery. DOI: 10.1145/3530019.3535309.

[14] Mert Ege Can, Poedjadevie Ramkisoen, Burak Karaduman, Serge Demeyer, and Moharram Challenger. Enhancing autonomous guided robots using software agents and uwb technology. In *Proceedings MECO2022 (11th Mediterranean Conference on Embedded Computing)*, pages 1–6, 2022. DOI: 10.1109/MECO55406.2022.9797196.

[15] John Businge, Ahmed Zerouali, Alexandre Decan, Tom Mens, Serge Demeyer, and Coen De Roover. Variant forks - motivations and impediments. In *Proceedings SANER 2022 (IEEE International Conference on Software Analysis, Evolution and Reengineering)*, pages 867–877, Los Alamitos, CA, USA, mar 2022. IEEE Computer Society. DOI: 10.1109/SANER53432.2022.00105.

[16] Bentley James Oakes, Ali Parsai, Simon Van Mierlo, Serge Demeyer, Joachim Denil, Paul De Meulenaere, and Hans Vangheluwe. Improving digital twin experience reports. In *Proceedings MODELSWARD 2021 (9th International Conference on Model-Driven Engineering and Software Development)*, pages 179–190. INSTICC, SciTePress, 2021. DOI: 10.5220/0010236101790190.

[17] ∗TOP∗ [A in CORE2020]. Maxime Gobert, Csaba Nagy, Henrique Rocha, Serge Demeyer, and Anthony Cleve. Challenges and perils of testing database manipulation code. In Marcello La Rosa, Shazia Sadiq, and Ernest Teniente, editors, *Proceedings CAiSE 2021 (33rd International Conference on Advanced Information Systems Engineering)*, pages 229–245. Springer International Publishing, 2021. DOI: 10.1007/978-3-030-79382-1_14, Acceptance ratio: 33 / 172 = 19%.

[18] Gustavo Carro, Werner Werner Jacobs, Patrick Storme, Anna Cabal, Serge Demeyer, and Olivier Schalm. A new approach to make indoor air quality in the accommodation of ships understandable and actionable for seafaring staff. In *Proceedings ICMT 2020 (8th International Conference on Maritime Transport — Maritime Transport VIII)*, September 2020.

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[24] Mercy Njima and Serge Demeyer. Challenges and potential benefits of adopting product line engineering in start-ups: A preliminary study. In Roberto E. Lopez-Herrejon, Jabier Martinez, Wesley Klewerton Guez Assunção, Tewfik Ziadi, Mathieu Acher, and Silvia Regina Vergilio, editors, *Handbook of Re-Engineering Software Intensive Systems into Software Product Lines*, pages 455–470. Springer International Publishing, 2023. DOI: 10.1007/978-3-031-11686-5_18.

[25] Serge Demeyer, Reiner Hähnle, and Heiko Mantel, editors. *Proceedings ISOLA 2022 (Track on Automated Software Reengineering)*. Springer International Publishing, oct 2022.

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[39] Serge Demeyer, Ali Parsai, Sten Vercammen, Brent van Bladel, and Mehrdad Abdi. Formal verification of developer tests: A research agenda inspired by mutation testing. In *Proceedings ISOLA 2020 (Leveraging Applications of Formal Methods, Verification and Validation: Engineering Principles)*. Springer International Publishing, October 2020. DOI: 10.1007/978-3-030-61470-6_2.

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[41] Zhong-Xi Lu, Sten Vercammen, and Serge Demeyer. Semi-automatic test case expansion for mutation testing. In *Proceedings VST 2020 (IEEE Workshop on Validation, Analysis and Evolution of Software Tests)*, pages 1–7. IEEE, 2020. DOI: 10.1109/VST50071.2020.9051637.

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In *Proceedings IWST 2019 (International Workshop on Smalltalk Technologies)*. ESUG, 2019.

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[47] Sten Vercammen. *Mutation testing : fewer, faster, and smarter*. PhD thesis, Universiteit Antwerpen, April 2023.

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