


Bibliography & Community Service

Christoph Matthies   

Peer-Reviewed Publications

2023

- **C. Matthies**, R. Heinrich, and R. Wohlrab, “Investigating software engineering artifacts in DevOps through the lens of boundary objects,” in *Proceedings of the 27th International Conference on Evaluation and Assessment in Software Engineering*, ser. EASE '23, 2023, pp. 12–21. DOI: 10/gsbbg5

2022

- **C. Matthies**, R. Teusner, and M. Perscheid, “Challenges (and opportunities!) of a remote agile software engineering project course during COVID-19,” in *Proceedings of the Annual Hawaii International Conference on System Sciences*, Hawaii International Conference on System Sciences, 2022, pp. 1–10. DOI: 10.24251/hicss.2022.113 (CC BY-NC-ND 4.0)
- D. De Paula, D. Hahn, **C. Matthies**, and F. Uebernickel, “InnoPulse: A tool to support collaborative reflection in creativity-driven engineering projects,” in *Proceedings of the Annual Hawaii International Conference on System Sciences*, Hawaii International Conference on System Sciences, 2022, pp. 1–10. DOI: 10.24251/hicss.2022.005 (CC BY-NC-ND 4.0)

2021

- F. Dobrigkeit, **C. Matthies**, P. Pajak, and R. Teusner, “Cherry picking - agile software development teams applying design thinking tools,” in *Agile Processes in Software Engineering and Extreme Programming – Workshops*, Springer International Publishing, 2021, pp. 201–206. DOI: 10.1007/978-3-030-88583-0_20
- G. Hesse, **C. Matthies**, M. Perscheid, M. Uflacker, and H. Plattner, “ESPBench: The Enterprise Stream Processing Benchmark,” in *Proceedings of the ACM/SPEC International Conference on Performance Engineering*, ACM, 2021, pp. 201–212. DOI: 10.1145/3427921.3450242 [online] ArXiv: <https://arxiv.org/abs/2103.06775>
- **C. Matthies** and F. Dobrigkeit, “Experience vs Data: A Case for More Data-Informed Retrospective Activities,” in *Lecture Notes in Business Information Processing*, Springer International Publishing, 2021, pp. 130–144. DOI: 10.1007/978-3-030-67084-9_8 [online] ArXiv: <https://arxiv.org/abs/2101.01528>

2020

- G. Hesse, **C. Matthies**, and M. Uflacker, “How Fast Can We Insert? An Empirical Performance Evaluation of Apache Kafka,” in *2020 IEEE 26th International Conference on Parallel and Distributed Systems (ICPADS)*, 2020, pp. 641–648. DOI: 10.1109/ICPADS51040.2020.00089 [online] ArXiv: <https://arxiv.org/abs/2003.06452>
- **C. Matthies**, F. Dobrigkeit, and G. Hesse, “Mining for Process Improvements: Analyzing Software Repositories in Agile Retrospectives,” in *Proceedings of the IEEE/ACM 42nd International Conference on Software Engineering Workshops*, ACM, 2020, pp. 189–190. DOI: 10.1145/3387940.3392168 [online] ArXiv: <https://arxiv.org/abs/2007.08265>
- F. Ramin, **C. Matthies**, and R. Teusner, “More than Code: Contributions in Scrum Software Engineering Teams,” in *Proceedings of the IEEE/ACM 42nd International Conference on Software Engineering Workshops*, ACM, Jun. 2020, pp. 137–140. DOI: 10.1145/3387940.3392241 [online] ArXiv: <https://arxiv.org/abs/2007.08237>

- **C. Matthies**, “Playing With Your Project Data in Scrum Retrospectives,” in *Proceedings of the ACM/IEEE 42nd International Conference on Software Engineering: Companion Proceedings*, ACM, Jun. 2020, pp. 113–115. DOI: 10.1145/3377812.3382164
- **C. Matthies**, J. Huegle, T. Dürschmid, and R. Teusner, “Attitudes, Beliefs, and Development Data Concerning Agile Software Development Practices,” in *Software Engineering 2020*, M. Felderer, W. Hasselbring, R. Rabiser, and R. Jung, Eds., Gesellschaft für Informatik e.V., 2020, pp. 73–74. DOI: 10.18420/SE2020_20 (CC BY-SA 4.0)
- **C. Matthies** and F. Dobrigkeit, “Towards Empirically Validated Remedies for Scrum Retrospective Headaches,” in *Proceedings of the 53rd Hawaii International Conference on System Sciences*, 2020. DOI: 10.24251/HICSS.2020.762 (CC BY-NC-ND 4.0) [online] ArXiv: <https://arxiv.org/abs/1910.08763>

2019

- **C. Matthies**, F. Dobrigkeit, and A. Ernst, “Counteracting Agile Retrospective Problems with Retrospective Activities,” in *Systems, Software and Services Process Improvement*, Springer International Publishing, 2019, pp. 532–545. DOI: 10.1007/978-3-030-28005-5_41
- G. Hesse, **C. Matthies**, K. Glass, J. Huegle, and M. Uflacker, “Quantitative Impact Evaluation of an Abstraction Layer for Data Stream Processing Systems,” in *2019 IEEE 39th International Conference on Distributed Computing Systems*, IEEE, Jul. 2019, pp. 1381–1392. DOI: 10.1109/ICDCS.2019.00138 [online] ArXiv: <https://arxiv.org/abs/1907.08302>
- G. Hesse, **C. Matthies**, W. Sinzig, and M. Uflacker, “Adding Value by Combining Business and Sensor Data: An Industry 4.0 Use Case,” in *24th International Conference on Database Systems for Advanced Applications*, G. Li, J. Yang, J. Gama, J. Natwichai, and Y. Tong, Eds., Springer International Publishing, 2019, pp. 528–532. DOI: 10.1007/978-3-030-18590-9_80 [online] ArXiv: <https://arxiv.org/abs/1903.06453>
- G. Hesse, W. Sinzig, **C. Matthies**, and M. Uflacker, “Application of Data Stream Processing Technologies in Industry 4.0: What is Missing?” In *Proceedings of the 8th International Conference on Data Science, Technology and Applications*, SciTePress, 2019, pp. 304–310. DOI: 10.5220/0007950203040310 (CC BY-NC-ND 4.0) [online] ArXiv: <https://arxiv.org/abs/1907.09387>
- **C. Matthies** and G. Hesse, “Towards using Data to Inform Decisions in Agile Software Development: Views of Available Data,” in *Proceedings of the 14th International Conference on Software Technologies*, SciTePress, 2019, pp. 552–559. DOI: 10.5220/0007967905520559 (CC BY-NC-ND 4.0) [online] ArXiv: <https://arxiv.org/abs/1907.12959>
- **C. Matthies**, F. Dobrigkeit, and G. Hesse, “An Additional Set of (Automated) Eyes: Chatbots for Agile Retrospectives,” in *IEEE/ACM 1st International Workshop on Bots in Software Engineering*, IEEE, 2019, pp. 34–37. DOI: 10.1109/BotSE.2019.00017 [online] ArXiv: <https://arxiv.org/abs/1903.02443>
- **C. Matthies**, J. Huegle, T. Dürschmid, and R. Teusner, “Attitudes, Beliefs, and Development Data Concerning Agile Software Development Practices,” in *IEEE/ACM 41st International Conference on Software Engineering: Software Engineering Education and Training*, IEEE, May 2019, pp. 158–169. DOI: 10.1109/ICSE-SEET.2019.00025 [online] ArXiv: <https://arxiv.org/abs/1903.01866>
- **C. Matthies**, “Agile Process Improvement in Retrospectives,” in *Proceedings of the 41st International Conference on Software Engineering: Companion Proceedings*, IEEE, 2019, pp. 150–152. DOI: 10.1109/ICSE-Companion.2019.00063
- **C. Matthies**, “Feedback in Scrum: Data-informed Retrospectives,” in *Proceedings of the 41st International Conference on Software Engineering: Companion Proceedings*, IEEE, 2019, pp. 198–201. DOI: 10.1109/ICSE-Companion.2019.00081

2018

- **C. Matthies**, R. Teusner, and G. Hesse, “Beyond Surveys: Analyzing Software Development Artifacts to Assess Teaching Efforts,” in *2018 IEEE Frontiers in Education Conference*, IEEE, 2018, pp. 1–9. DOI: 10.1109/FIE.2018.8659205 [online] ArXiv: <https://arxiv.org/abs/1807.02400>
- R. Teusner, **C. Matthies**, and T. Staubitz, “What Stays in Mind? - Retention Rates in Programming MOOCs,” in *2018 IEEE Frontiers in Education Conference*, IEEE, 2018, pp. 1–9. DOI: 10.1109/FIE.2018.8658890 [online] ArXiv: <https://arxiv.org/abs/1807.01974>
- **C. Matthies**, “Scrum2kanban: Integrating Kanban and Scrum in a University Software Engineering Capstone Course,” in *Proceedings of the 2nd International Workshop on Software Engineering Education for Millennials*, ACM, 2018, pp. 48–55. DOI: 10.1145/3194779.3194784 [online] ArXiv: <https://arxiv.org/abs/1804.03412>
- G. Hesse, B. Reissaus, **C. Matthies**, M. Lorenz, M. Kraus, and M. Uflacker, “Senska – Towards an Enterprise Streaming Benchmark,” in *Performance Evaluation and Benchmarking for the Analytics Era*, R. Nambiar and M. Poess, Eds., Springer International Publishing, 2018, pp. 25–40. DOI: 10.1007/978-3-319-72401-0_3

2017

- **C. Matthies**, A. Treffer, and M. Uflacker, “Prof. CI: Employing Continuous Integration Services and GitHub Workflows to Teach Test-Driven Development,” in *2017 IEEE Frontiers in Education Conference*, IEEE, 2017, pp. 1–8. DOI: 10.1109/FIE.2017.8190589 [online] ArXiv: <https://arxiv.org/abs/1809.00580>
- G. Hesse, **C. Matthies**, B. Reissaus, and M. Uflacker, “A New Application Benchmark for Data Stream Processing Architectures in an Enterprise Context,” in *Proceedings of the 11th ACM International Conference on Distributed and Event-based Systems*, ACM, 2017, pp. 359–362. DOI: 10.1145/3093742.3093902
- R. Teusner, **C. Matthies**, and P. Giese, “Should I Bug You? Identifying Domain Experts in Software Projects Using Code Complexity Metrics,” in *2017 IEEE International Conference on Software Quality, Reliability and Security*, IEEE, 2017, pp. 418–425. DOI: 10.1109/QRS.2017.51 [online] ArXiv: <https://arxiv.org/abs/1809.07668>

2016

- **C. Matthies**, T. Kowark, M. Uflacker, and H. Plattner, “Agile metrics for a university software engineering course,” in *2016 IEEE Frontiers in Education Conference*, IEEE, 2016, pp. 1–5. DOI: 10.1109/FIE.2016.7757684 [online] ArXiv: <https://arxiv.org/abs/1809.00599>
- T. Kowark, **C. Matthies**, M. Uflacker, and H. Plattner, “Lightweight Collection and Storage of Software Repository Data with DataRover,” in *Proceedings of the 31st IEEE/ACM International Conference on Automated Software Engineering*, ACM, 2016, pp. 810–815. DOI: 10.1145/2970276.2970286
- **C. Matthies**, T. Kowark, and M. Uflacker, “Teaching Agile the Agile Way — Employing Self-Organizing Teams in a University Software Engineering Course,” in *American Society for Engineering Education (ASEE) International Forum*, ASEE, 2016, pp. 1–8 [online] Available: <https://peer.asee.org/27259>
- **C. Matthies**, T. Kowark, K. Richly, M. Uflacker, and H. Plattner, “How Surveys, Tutors, and Software Help to Assess Scrum Adoption,” in *Proceedings of the 38th International Conference on Software Engineering Companion*, ACM, 2016, pp. 313–322. DOI: 10.1145/2889160.2889182 [online] ArXiv: <https://arxiv.org/abs/1809.00650>
- **C. Matthies**, T. Kowark, K. Richly, M. Uflacker, and H. Plattner, “ScrumLint: Identifying Violations of Agile Practices Using Development Artifacts,” in *Proceedings of the 9th International Workshop on Cooperative and Human Aspects of Software Engineering*, ACM, 2016, pp. 40–43. DOI: 10.1145/2897586.2897602 [online] ArXiv: <https://arxiv.org/abs/1809.00634>

2015

- **C. Matthies**, L. Pirl, A. Azodi, and C. Meinel, “Beat your Mom at Solitaire — A Review of Reverse Engineering Techniques and Countermeasures,” in *6th IEEE International Conference on Software Engineering and Service Science*, IEEE, 2015, pp. 1094–1097. DOI: 10.1109/ICSESS.2015.7339242

Technical Reports & Book Chapters

- **C. Matthies**, M. Sánchez-Gordón, J. B. Jørgensen, and L. Prechelt, “*Communication Is a Scarce Resource!*”: A Summary of CHASE’22 Conference Discussions, 2022. DOI: 10.48550/ARXIV.2207.00054
- F. Dobrigkeit, **C. Matthies**, R. Teusner, and M. Perscheid, “Joining forces: Applying design thinking techniques in scrum meetings,” in *Design Thinking Research : Translation, Prototyping, and Measurement*, C. Meinel and L. Leifer, Eds. Springer International Publishing, 2021, pp. 315–345. DOI: 10.1007/978-3-030-76324-4_17 [online] ArXiv: <https://arxiv.org/abs/2109.06578>
- **C. Matthies**, *Employing Software Development Data to Drive Process Change*, C. Meinel, H. Plattner, J. Döllner, *et al.*, Eds., ser. Technische Berichte des Hasso-Plattner-Instituts für Digital Engineering an der Universität Potsdam 129. Potsdam, Germany: Universitätsverlag Potsdam, 2019, pp. 119–131. DOI: 10.25932/publishup-42753 [online] Available: <https://nbn-resolving.org/urn:nbn:de:kobv:517-opus4-427535>
- **C. Matthies**, “Relying on Development Data for Software Development Processes,” in *Proceedings of the 10th Ph. D. Retreat of the HPI Research School on Service-oriented Systems Engineering*, 111, C. Meinel, H. Plattner, J. Döllner, *et al.*, Eds., Potsdam, Germany: Universitätsverlag Potsdam, 2016, pp. 161–170 [online] Available: <https://nbn-resolving.de/urn:nbn:de:kobv:517-opus4-100260>
- **C. Matthies**, “Data-Driven Process Improvement in Agile Software Development Teams,” in *Proceedings of the 10th Joint Workshop of the German Research Training Groups in Computer Science: Dagstuhl 2016*, B. Etzold and R. Richter, Eds., Universitätsverlag der Technischen Universität Chemnitz, Chemnitz, 2016, p. 215 [online] Available: <https://nbn-resolving.de/urn:nbn:de:bsz:ch1-qucosa-201990>
- H. Hesse and **C. Matthies**, *Introduction to Homomorphic Encryption*, C. Neuhaus and A. Polze, Eds., 87. Universitätsverlag Potsdam, 2014, pp. 30–41 [online] Available: <https://nbn-resolving.org/urn:nbn:de:kobv:517-opus-68168>

Community Service

2023

- Publicity Co-Chair: *20th International Conference on Mining Software Repositories (MSR’23)*
- Program Committee: *Fifth International Workshop on Software Engineering Education for the Next Generation (SEENG’23)*
- Program Committee: *Joint Track on Software Engineering Education and Training (ICSE-SEET’23)*
- Program Committee: *Track on Lean and Agile Software Development at the 38th ACM/SIGAPP Symposium On Applied Computing (LASD@SAC’23)*
- Program Committee: *24th Conference on Practical Aspects of and Solutions for Software Engineering (KKIO@FedCSIS’23)*
- Program Committee: *European System, Software & Service Process Improvement & Innovation (EuroSPI’23)*
- Peer Review: *IEEE Software*

2022

- Program Committee: *ICSE 2022—Software Engineering Education and Training* (ICSE-SEET'22)
- Program Committee: *Designing and Running Project-Based Courses in Software Engineering Education* (DREE'22)
- Program Committee: *European System, Software & Service Process Improvement & Innovation* (EuroSPI'22)
- Judge: *ACM Student Research Competition* (ICSE'22 SRC)
- Peer Review: *Journal of Systems and Software* (JSS)
- Peer Review: *Hawaii International Conference on System Sciences* (HICSS'23)
- Session Chair: *Blended Session on Teaching SE Skills* (Virtual ICSE'22)
- Session Chair: *Blended Session on Teaching and Productivity* (In-Person ICSE'22)
- Student Volunteer: *15th Conference on Cooperative and Human Aspects of Software Engineering* (CHASE'22)
- Student Volunteer: *International Conference on Formal Methods in Software Engineering* (FormalISE'22)
- Student Volunteer: *44th International Conference on Software Engineering* (ICSE'22)

2021

- Program Committee: *6th International Conference on Lean and Agile Software Development* (LASD'22)
- Program Committee: *Third International Workshop on Software Engineering Education for the Next Generation* (SEENG@ICSE'21).
- Publicity Chair: *European Conference on Object-Oriented Programming* (ECOOP'22)
- Publicity Chair: *15th Innovations in Software Engineering Conference* (ISEC'22)
- Student Volunteer: *43rd International Conference on Software Engineering* (ICSE'21)
- 2x Peer Review: *Journal of Systems and Software* (JSS)
- Peer Review: *Hawaii International Conference on System Sciences* (HICSS'22)

2020

- Program Committee: *5th International Conference on Lean and Agile Software Development* (LASD'21)
- Student Volunteer: *ACM SIGPLAN Conference on Systems, Programming, Languages, and Applications: Software for Humanity* (SPLASH'20)
- Student Volunteer: *ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering* (ESEC/FSE'20)
- Student Volunteer: *The International Conference on Predictive Models and Data Analytics in Software Engineering* (PROMISE'20)
- Student Volunteer: *42nd ACM/IEEE International Conference on Software Engineering* (ICSE'20)
- Social Media Volunteer: *13th International Workshop on Cooperative and Human Aspects of Software Engineering* (CHASE'20)
- Volunteer Ambassador: *IEEEExtreme 14.0*, programming competition with more than 7,300 participants
- Peer Review: *Conversational User Interfaces Conference* (CUI'20)
- Peer Review: *Computer Applications in Engineering Education* (CAE)
- Peer Review: *IEEE Transactions on Games* (T-Games)

2019

- Student Volunteer: *41st ACM/IEEE International Conference on Software Engineering (ICSE'19)*
- Peer Review: *Empirical Software Engineering (EMSE)*
- Peer Review: *Journal of Systems and Software (JSS)*

2018

- Peer Review: *IEEE/ASEE Frontiers in Education Conference (FIE'18)*

2016

- Peer Review: *IEEE/ASEE Frontiers in Education Conference (FIE'16)*