

UNIVERSITY OF MILAN

Public selection for recruiting No. __ tenure track researcher(s) (RTT) for scientific-disciplinary group 01/INFO-01 - INFORMATICA, (scientific-disciplinary sector 01/INFO-01 - INFORMATICA) at the Department of Dipartimento di Scienze Sociali e Politiche, (announcement published in Official Gazette No. D.R. 6842/2024 del 12/11/2024) - Competition code 5652

[Name and Surname] CURRICULUM VITAE

(N.B. CV MUST BE OF UP TO 30 PAGES AND INCLUDE THE DETAILS CANDIDATES CONSIDER USEFUL FOR THE ASSESSMENT.

ALL THE TITLES INSERTED BELOW ARE JUST EXAMPLES THAT CAN BE REPLACED, CHANGED OR COMPLETED)

PERSONAL DATA (DO NOT INCLUDE YOUR PERSONAL ADDRESS AND LANDLINE OR MOBILE PHONE NUMBER)

SURNAME	LENARDUZZI
NAME	VALENTINA
DATE OF BIRTH	

QUALIFICATIONS

DEGREE

Ph.D. in Computer Science, passed, UNIVERSITA' DEGLI STUDI DELL INSUBRIA, VARESE 23/01/2015

RESEARCH CONTRACTS, RESEARCH FELLOWSHIP CONTRACTS, POSTDOCTORAL SCHOLARSHIPS OR SIMILAR CONTRACTS

Associate Professor (tenure track) –University of Oulu (Oulu – FINLAND)

From May 2024 (fixed-term contract for 5 years) – Full time

My research is mainly focused on software maintenance and Technical Debt (TD) in general, including the investigation of TD at the code level, at the architectural level, and during the selection of specific cloud-native technologies. Moreover, I am also considering different TD perspectives, publishing top-level publications on the impact between different types of quality issues such as code smells and architectural smells, but also possible TD issues during the adoption of cloud-native technologies including Microservices and serverless.

Assistant Professor (tenure track) –University of Oulu (Oulu – FINLAND)

Jan. 2021 – April 2024 – Full time

My research is mainly focused on software maintenance and Technical Debt (TD) in general, including the investigation of TD at the code level, at the architectural level, and during the selection of specific cloud-native technologies. Moreover, I am also considering different TD perspectives, publishing top-level publications on the impact between different types of quality issues such as code smells and architectural smells, but also possible TD issues during the adoption of cloud-native technologies including Microservices and serverless.

Postdoctoral Research Fellow – LUT University (Lahti – FINLAND)

Jan. 2020 – Dec. 2021 – Full time

My research was mainly related to software quality, maintenance, and evolution with a special focus on Technical Debt. I investigated different perspectives of Technical Debt, broadening my research interests to software architectures, requirements engineering, testing, processes, and business aspects. Moreover, I am investigating how to adopt methods from epidemiology in empirical software engineering and how to conduct data analysis on time series in empirical software engineering.

From an Educational point of view, I collaborated in launching the software engineering education program at the Lahti campus. Together with some LUT colleagues and a previous one in Tampere University, I started to collaborate to understand what companies need that can help plan the teaching activities to better set up the students' skills.

Postdoctoral Research Fellow – Tampere University (formerly Tampere University of Technology) (Tampere – FINLAND)

Feb. 2018– Dec. 2019 – Full time

I enjoy lecturing in a bachelor's course (Introduction to Software Engineering) and two Master's courses (Demola and "Project Work on Pervasive Systems"). Moreover, I also work as a teaching assistant for the course "Software Engineering Methodologies" and do mentoring for the international master's program.

As for my research, I worked on software maintenance and evolution with a special focus on Technical Debt. I started to investigate what software characteristics impact Technical Debt, including different aspects of the software such as code violations, code smells, and architectural smells, as well as process-related aspects such as process decisions. One of the most recent applications is related to investigating the migration to microservices, identifying the refactoring activities that should be adopted when migrating from monolithic to microservices, and understanding how to prioritize them.

Postdoctoral Research Fellow – Free University of Bozen/Bolzano (Bolzano/Bozen – ITALY)

Mar. 2015 – Dec. 2017 – Full time

I worked in two domains: agile software development for start-ups and SMEs and software quality models for SMEs. On the Agile and Lean side, I worked on a set of empirical studies in collaboration, which were aimed at identifying the processes adopted to define the minimum viable product, at how companies adopt agile practices, and, in one project, at supporting new product development processes for companies changing business. On the software quality side, I worked on a project to support local SMEs and micro-enterprises that use agile methods, with the goal of tailoring their development processes to reduce project failures due to long-term maintainability issues. Both projects were carried out in collaboration with the local business consortium (IDM Südtirol), where I coordinated the empirical studies among the companies.

I was also involved in several works with international partners, thanks to the network of software factories. I collaborated with the University of Oulu, Fraunhofer IESE, the University of Cagliari, and the University of Tampere on four different works regarding the analysis of agile processes, effort estimation in agile processes, and functional size measurement.

In the project STIMULI (STimulating And oRganizing the deveLopment of crEative iDeas project), which was aimed at supporting the new product development for companies changing business in cooperation with start-up firms in the South Tyrol Business Consortium (IDM Südtirol), I developed a platform to support requirements elicitation and traceability and conducted a controlled experiment to evaluate the project results.

Visiting Researcher – University of Kaiserslautern / Fraunhofer Institute for Experimental Software Engineering IESE (Kaiserslautern - GERMANY)

May. 2014 – Jan. 2015 – Full time

I was a visiting researcher at the University of Kaiserslautern, Germany (Software Engineering Research Group (AGSE) – supervisor Prof. Dieter Rombach) and at Fraunhofer IESE in Kaiserslautern, Germany, ("Software Process Modeling" group), where I worked for 9 months on Empirical Software Engineering in Embedded Software and Agile projects focusing on the avionics domain in collaboration with Liebherr Aerospace (Lindenberg im Allgäu – Germany) in order to define a classification schema for development technology and coordination of the development of the platform developed and an effort prediction model based on functional measures, so as to support the development effort in agile processes.

TEACHING ACTIVITIES AT ITALIAN OR FOREIGN UNIVERSITIES

2024/2025 Lecturer

- Software Quality and Testing – University of Oulu (Finland) – 8 credits
- AI for Software Engineering – University of Oulu (Finland) – 8 credits

2022/2023 Lecturer

- Research Method – University of Oulu (Finland) – 8 credits
- AI for Software Engineering – University of Oulu (Finland) – 8 credits

2020/2021 Lecturer

- Software Process Management – LUT University (Finland) – 8 credits
- Software Maintenance – LUT University (Finland) – 8 credits

2019/2020 Lecturer

- Demola Project Work – Tampere University (Finland) – 8 credits
- Introduction to Software Engineering – Tampere University (Finland) – 8 credits
- Project Work on Pervasive Systems – Tampere University (Finland) – 8 credits

2018/2019 Teaching Assistant

- Software Engineering Methodologies – Tampere University (Finland) – 8 credits

2018/2019 Lecturer

- Master's Seminar -Tampere University of Technology (Finland) – 8 credits
- Demola Project Work – Tampere University of Technology (Finland) – 8 credits
- Project Work on Pervasive Systems – Tampere University of Technology (Finland) – 8 credits

2017/2018 Teaching Assistant

- Computer Science – Free University of Bolzano/Bozen (Italy). Bachelor in industrial and Mechanical Engineering (~ 100 students / Evaluation 4/5)

2016/2017 Teaching Assistant

- Computer Science – Free University of Bolzano/Bozen (Italy). Bachelor in Agricultural and Agro-Environmental Sciences (~ 100 students / Evaluation 4/5)
- Innovation and Entrepreneurship in ICT – University of Trento. European Master I&E Studies (~ 50 students / Evaluation 4/5)

2012/13 Teaching Assistant

- Multimedia Communication Techniques – University of Insubria (Italy). Bachelor in Interlinguistic and Intercultural Mediation Sciences (~ 60 students / Evaluation 7/10)
- Computer Science – University of Insubria (Italy). Bachelor in Tourism Sciences (~ 60 students / Evaluation 8/10)
- Computer Science for Public Administration – University of Insubria (Italy). Bachelor in Law (~ 90 students / Evaluation 8/10)
- Operative System Laboratory – University of Insubria (Italy). Bachelor in Computer Science (~ 40 students / Evaluation 7/10)

2011/12 Teaching Assistant

- Multimedia Communication Techniques – University of Insubria (Italy). Bachelor in Interlinguistic and Intercultural Mediation Sciences (~ 60 students / Evaluation 7/10)
- Computer Science – University of Insubria (Italy). Bachelor in Tourism Sciences (~ 60 students / Evaluation 8/10)
- Computer Science for Public Administration – University of Insubria (Italy). Bachelor in Law (~ 100 students / Evaluation 8/10)

CONFERENCE AND SPECIAL ISSUE ORGANIZATION

Conference and workshop

- General Co-chair - International Conference on Product-Focused Software Process Improvement (PROFES2025) Salerno– Italy
- Program Co-chair - International Conference on Evaluation and Assessment in Software Engineering (ESEM2025), Hawaii, USA
- Program Co-Chair - International European Conference On Service-Oriented And Cloud Computing (ESOCC2025) Bolzano, Italy
- Organizer Co-Chair - Workshop on Gender Equity, Diversity, and Inclusion in Software Engineering (GE@ICSE2025) Ottawa, Canada
- General Co-chair - International Conference on Software Analysis, Evolution and Reengineering (SANER2024) Rovaniemi – Finland
- Doctoral Symposium Co-chair – European Conference on Software Architecture (ECSA2024) Luxembourg
- Organizer Co-Chair - Workshop on First Workshop on Edge Software Architecture, Lisbon - Portugal
- Organizer Co-Chair - Workshop on Gender Equity, Diversity, and Inclusion in Software Engineering (GE@ICSE2024) Lisbon - Portugal
- Industrial Co-Chair - International European Conference On Service-Oriented And Cloud Computing (ESOCC2023) Larnaca - Cyprus
- Program Co-Chair - International Conference on Product-Focused Software Process Improvement (PROFES2023) Dornbirn - Austria
- Program Co-Chair - Euromicro Conference on Software Engineering and Advanced Applications (SEAA2023) Durazzo- Albania
- Program Co-Chair - International Conference on the Quality of Information and Communications Technology (QUATIC2023) Aveiro – Portugal
- Short Papers and Posters Co-Chair - International Conference on Evaluation and Assessment in Software Engineering (EASE2023) Oulu- Finland

- Organizer Co-Chair - Workshop on Gender Equity, Diversity, and Inclusion in Software Engineering (GE@ICSE2023) Melbourne – Australia
- Equality, Diversity, and Inclusiveness co-chair - International Conference on Evaluation and Assessment in Software Engineering (ESEM2023) New Orleans – USA
- Program Co-Chair - International Conference on Technical Debt (TechDebt2022) Pittsburgh – USA
- Vision and Emerging results Co-Chair - International Conference on Product-Focused Software Process Improvement (PROFES2022) Jyväskylä – Finland
- Organizing co-chair International Workshop on Gender Equity, Diversity, and Inclusion in Software Engineering (GE@ICSE2022) Pittsburgh – USA
- Organizing co-chair International Workshop on Software Quality for AI (SQ4AI) collocated with SANER2022 Honolulu – USA
- Publicity co-chair IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER 2022), Honolulu (USA)
- Organizing co-chair – 5th International Workshop on Machine Learning Techniques for Software Quality Evolution (MaLTesQuE 2021), Athens (Greece)
- Tool Track co-chair – 4th International Conference on Technical Debt (TechDebt 2021), Madrid (Spain)
- Program co-chair - 17th International Conference on Open Source Systems (OSS 2021), Lahti (Finland)
- Publicity co-chair - 14th Empirical Software Engineering and Measurement (ESEM 2021), Bari (Italy)
- New Ideas co-chair 15th International Symposium on Open Collaboration (OpenSym 2020), Madrid (Spain)
- Publicity co-chair - 13th Empirical Software Engineering and Measurement (ESEM 2020), Bari (Italy)
- On-site track co-chair - 21st International Conference on Agile Software Development (XP 2020), Copenhagen (Denmark)
- Quality Aspects in Software Maintenance and Comprehension track co-chair - 12th International Conference on the Quality of Information and Communications Technology (QUATIC 2019), Ciudad Real (Spain)
- Publicity chair - 23rd Evaluation and Assessment in Software Engineering (EASE 2019), Copenhagen (Denmark)
- Proceeding chair - 15th International Conference on Open Source Systems (OSS 2019), Montreal (Canada)
- Co-organizer of the INFORTE Seminar on Serverless Application in Tampere University in September 2019
- Co-organizer of the First International Workshop on Microservices for Agile Software Development XP2017, Cologne (Germany), 2017
- Co-organizer of Italian Conference of Open Source Software, Como (Italy), 2013
- Co-organizer of First Summer School on Open Source Software, Como (Italy), 2012

Special Issue in Journal

- Journal systems and Software. Special Issue on Gender Equity, Diversity, and Inclusion in Software Engineering (GE@ICSE2023)
- Software Quality. Special Issue on Journal International Conference on the Quality of Information and Communications Technology (QUATIC2023)
- Information and Software Technology. Special Issue on Euromicro Conference on Software Engineering and Advanced Applications (SEAA2023)
- Information and Software Technology. Special Issue on International Conference on Product-Focused Software Process Improvement (PROFES2023)
- Information and Software Technology. Special Issue on International Conference on Agile Software and Systems Development (XP2020).
- Journal of Internet Services and Applications. Special Issue on International Symposium on Open Collaboration (OpenSym 2020)
- IEEE Software. Special Issue on Technical Debt: 10 Years of Research and Practice.
- Empirical Software Engineering Journal. Special Issues on MaLTesQuE 2021 (5th International Workshop on Machine Learning Techniques for Software Quality Evolution)
- Journal of Information and Software Technology. Special Issue on 4th International Conference on Technical Debt (TechDebt 2021)

REVIEWER FOR INTERNATIONAL CONFERENCES AND JOURNALS

- International Conference on Software Architecture (ICSA) from 2024
- International Conference on Software Engineering (ICSE) from 2023
- International Conference on Empirical Software Engineering and Measurement (ESEM) from 2021
- International Conference on Program Comprehension (ICPC), 2021
- Transaction in Software Engineering Methodology from 2020
- International Conference on Software Maintenance and Evolution - Emerging track (ICSME), 2020, Research track, Emerging track and Journal first track from 2021

- Transaction in Software Engineering from 2019
- Software Quality Journal from 2019
- Empirical Software Engineering Journal, from 2018
- Euromicro Conference on Software Engineering and Advanced Applications (SEAA) - Software Engineering and Technical Debt track, from 2018
- Euromicro Conference on Software Engineering and Advanced Applications (SEAA) - Software Analytics: Mining Software Open Datasets and Repositories, from 2019
- International Conference on Agile Software Development (XP), 2018
- Evaluation and Assessment in Software Engineering (EASE), 2018, 2019
- International Conference on Technical Debt from 2019
- Journal of Systems and Software, from 2018
- International Conference on Open Source Systems (OSS), 2018, 2019, 2020
- International Workshop on Cloud-Native Applications Design and Experience (CNAX), 2018
- International Workshop on Microservices: Agile and DevOps Experience (MADE), 2018
- MICROSERVICES-BOOK. Springer, 2019
- E-informatica Software Engineering Journal, from 2017
- International Conference on Software Engineering Advances (ICSEA), 2016, 2017, 2018, 2019

OTHER PROFESSIONAL SERVICES

Supervisions

- Master and Bachelor students: 20
- Ph.D. students
 - Co-supervision: 2 (graduated in 2023, 1 started in January 2022)
 - Supervision 2 (started in October 2023 and August 2024)

Board Member

- Td-survey initiative - Finland team leader
- ISERN RESEARCH COMMUNITY – second member for Tampere University in 2019
- Key account managers in LENS for priority external partners (Polytechnic University of Milan). LUT University 2021
- COST Action 19122 (2020-2024). Working Group Leader and Core Management Member

Teaching mentor international students

International Bachelor's and Master's students - Tampere University (Finland), 2018-2019

Invited speaker

- University of L'Aquila – Seminar on AI for Software Quality, November 2024
- University of Tucson – Seminar on Software Quality, September 2024
- Mälardalen University – Seminar on Technical Debt. September 2024
- University of Cagliari – Seminar on Technical Debt. February 2023
- Microservices Conference – Keynote. May 2022
- INFORTE Seminar. Machine Learning Techniques for Bug Prediction. June 2019
- Univ. of Oslo. Technical Debt Detection Tools. April 2019
- Univ. of Milano Bicocca. Technical Debt Prioritization Approaches. The state of the art. Oct. 2018
- FOSDEM 2013 - Workshop on Open Source Marketing

Steering Committee Membership

- IEEE International Conference on. Software Analysis, Evolution and Reengineering (SANER) – Core level A*
- IEEE/ACM International Conference on Evaluation and Assessment in Software Engineering (ESEM) – Core level A

Ph.D. evaluation committee member

- University of Cagliari – February 2023 and April 2023
- KTH Royal Institute of Technology – June 2023
- Mälardalen University - September 2024

IMPLEMENTATION OF PROJECTS

Software Rejuvenation. Ulla Tuominen Foundation, Finland.

Project based on a competitive call, aiming to rejuvenate software through AI techniques. The project enabled the recruitment of a researcher for one year.

01-01-2019 al 31-12-2020

European Network for Gender Balance in Informatics (Eugain) "Cost Action" 19122.

During the project I was country leader and PI for my home institution. The project enabled the development of several guidelines that were adopted in several international institutions.

01-10-2020 al 01-10-2024

ORGANISATION, SUPERVISION AND COORDINATION OF NATIONAL AND INTERNATIONAL RESEARCH GROUPS, OR PARTICIPATION IN THEM

Participation in the activities of the 'AGSE' research group

University of Kaiserslautern, Germany - 01-05-2014 al 31-01-2015.

My participation in the group, which is managed by Prof. Dieter Rombach and is characterized by national and international collaborations, has resulted in the publication of numerous scientific articles as well as the submission of several European and national research projects.

Co-leader of the Cloudsea.ai research group

Tampere University, Tampere, Finland - 01-02-2015 al 31-12-2017.

The group, consisting of 10 researchers and co-managed by me, worked with over 30 international partners during my time at Tampere University.

Participation in the activities of the 'LUT Software' research group

Lut University, Lahti-Lappeenranta, Finland - 01-01-2020 al 31-12-2021.

My participation in the group, characterized by national and international collaborations, has resulted in the publication of numerous scientific articles as well as the submission of several European and national research projects.

During my participation in LUT software, I have collaborated with more than 20 international research groups, both on scientific articles and on the preparation of European projects.

Participation in 'M3S' research group activities

Oulu University, Finland – from 01-01-2022

My participation in the group, characterized by national and international collaborations, has resulted in the publication of numerous scientific articles as well as the submission of several European and national research projects.

During my participation in M3S, I have collaborated with more than 20 international research groups, both on scientific articles and on the preparation of European projects.

NATIONAL AND INTERNATIONAL AWARDS AND ACCOLADES FOR RESEARCH ACTIVITY

Giulia Sellitto, Emanuele Iannone, Zadia Codabux, Valentina Lenarduzzi, Andrea De Lucia, Fabio Palomba, Filomena Ferrucci. Toward Understanding the Impact of Refactoring on Program Comprehension. IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER2022) – BEST PAPER

SCIENTIFIC PRODUCTION

SCIENTIFIC PUBLICATIONS

Journals

- J1 G. Recupito, F. Pecorelli, G. Catolino, V. Lenarduzzi, D. Taibi, D. Di Nucci, F. Palomba. Technical Debt in AI-Enabled Systems: On the Prevalence, Severity, Impact, and Management Strategies for Code and Architecture. Journal of Systems and Software. 2024
- J2 E Iannone, Z Codabux, V Lenarduzzi, A De Lucia, F Palomba. Rubbing salt in the wound? A large-scale investigation into the effects of refactoring on security. Empirical Software Engineering, Volume 28, 2023
- J3 L. Rantala, M. Mäntylä, V. Lenarduzzi. Keyword-labeled self-admitted technical debt and static code analysis have significant relationship but limited overlap. Software Quality Journal. 2023

- J4 I. Gorton, F. Khomh, V. Lenarduzzi, C. Menghi, D. Roman. Software Architectures for AI Systems: State of Practice and Challenges. Software Architecture: Research Roadmaps from the Community. 2023
- J5 A.R. Nasab, M. Shahin, S.A. Hoseyni Raviz, P. Liang, A. Mashmool, V. Lenarduzzi. "An empirical study of security practices for microservices systems" Journal of Systems and Software, Volume 198, 2023.
- J6 V. Lenarduzzi, F. Pecorelli, N. Saarimaki, S. Lujan, F. Palomba. "A Critical Comparison on Six Static Analysis Tools: Detection, Agreement, and Precision" Journal of Systems and Software, Volume 198, 2023.
- J7 F. Lomio, E. Iannone, A. De Lucia, F. Palomba, V. Lenarduzzi. "Just-in-Time Software Vulnerability Detection: Are We There Yet?" Journal of Systems and Software, Volume 188, 2022.
- J8 F. Pecorelli, S. Lujan, V. Lenarduzzi, A. De Lucia, F. Palomba. "On the adequacy of static analysis warnings with respect to code smell prediction. Empirical Software Engineering, Volume 27, 2022.
- J9 A. Melo, R. Fagundes, V. Lenarduzzi, W. Santos. "Identification and Measurement of Requirements Technical Debt in Software Development: a Systematic Literature Review". Information and Software Technology, Volume 194, 2022.
- J10 F. Lomio, S. Moreschini, V. Lenarduzzi. A Machine and Deep Learning analysis among SonarQube rules, Product, and Process Metrics for Faults Prediction. Empirical Software Engineering, Volume 27, 2022.
- J11 S. Herbold et al. "A Fine-grained Data Set and Analysis of Tangling in Bug Fixing Commits. Empirical Software Engineering, Volume 27, 2022.
- J12 V. Lenarduzzi, J. Daly, A. Martini, S. Panichella and D.A. Tamburri. "Towards a Technical Debt Conceptualization for Serverless Computing". IEEE Software, Volume 38, 2021.
- J13 F. Auer, V. Lenarduzzi, M. Felderer, D. Taibi. From Monolithic Systems to Microservices: An Assessment Framework. Information and Software Technology 106600, 2021.
- J14 V. Lenarduzzi and A. Panichella. "Serverless Testing: Tool Vendors and Experts Point of View". IEEE Software, Volume 38, 2021.
- J15 V. Lenarduzzi, T. Besker, D. Taibi, A. Martini and F. Arcelli Fontana. "A Systematic Literature Review on Technical Debt Prioritization: Strategies, Processes, Factors, and Tools". Journal of Systems and Software, Volume 171, 2021.
- J16 P. Avgeriou, D. Taibi, A. Ampatzoglou, F. Arcelli Fontana, T. Besker, A. Chatzigeorgiou, V. Lenarduzzi, A. Martini, N. Moschou, I. Pigazzini, N. Saarimäki, D. Sas, S. Soares de Toledo, and A. Tsintzira. "An Overview and Comparison of Technical Debt Measurement Tools". IEEE Software, 2020.
- J17 V. Lenarduzzi, V. Nikkola, N. Saarimaki, and D. Taibi. Does Code Quality Affect Pull Requests Acceptance? An Empirical Study. Journal of Systems and Software, Volume 171, 2021.
- J18 V. Lenarduzzi, N. Saarimaki, and D. Taibi. "Some SonarQube Issues have a Significant but Small Effect on Faults and Changes. A Large-Scale Empirical Study". Journal of Systems and Software, Volume 170, 2020.
- J19 V. Lenarduzzi, F. Lomio, N. Saarimäki, and D. Taibi. "Does Migrating a Monolithic System to Microservices Decrease the Technical Debt? " Journal of Systems and Software, Volume 169, 2020.
- J20 M.T. Baldassarre, V. Lenarduzzi, S. Romano, and N. Saarimaki. "On the Diffuseness and Accuracy of SonarQube's Technical Debt" Information and Software Technology Journal, Volume 128, 2020.
- J21 D. Taibi, V. Lenarduzzi, and C. Pahl. "Microservices Antipattern: A Taxonomy" Microservices - Science and Engineering, https://doi.org/10.1007/978-3-030-31646-4_5, 2020.
- J22 F. Arcelli Fontana, V. Lenarduzzi, R. Roveda and D. Taibi. "Are Architectural Smells Independent from Code Smells? An Empirical Study". Journal of Systems and Software, Volume 154, 2019.
- J23 N. Sbai, V. Lenarduzzi, D. Taibi, S. Ben Sassi and H.H. Ben Ghezala. "Using information from OSS repositories and platforms to support OSS selection decisions". Information and Software Technology Journal, Volume 104, 2018.
- J24 D. Taibi, A. Janes and V. Lenarduzzi. "How Developers Perceive Smells in Source Code: A Replicated Study ". Information and Software Technology (IST), Vol. 92, pp. 223-235. December 2017. The paper was selected for the ESEM "Journal First" track in 2018.
- J25 D. Taibi. V. Lenarduzzi. "An Empirically Defined Set of Bad Architectural Smells for Microservices" IEEE Software, Vol 35, Issue 3, May/June, 2018.
- J26 D. Taibi, V. Lenarduzzi and C. Pahl. "Processes, Motivations and Issues for Migrating to Microservices Architectures: An Empirical Investigation". IEEE Cloud Computing, vol. 4, Issue 5, 2017.
- J27 L. Dieudonné, V. Lenarduzzi, C. Plociennik and D. Taibi. "Towards a Classification Schema for Development Technologies: An Empirical Study in the Avionic Domain". International Journal on Advances in Software, Vol 8 n 1&2, 2015.

Conferences

- C1 Friso C., Lenarduzzi V., Taibi D. and Tosi D. "How Open Source Software Products Can Support Teaching in Italian Schools". 5th European Conference on Information Management and Evaluation, ECIME, 2011
- C2 Lenarduzzi V. and Morasca S. "Towards a Marketing Strategy for Open Source Software" 12th International Conference (PROFES 2011), Torre Canne, Italy, June 20-22, 2011.
- C3 Del Bianco V., Lavazza L., Lenarduzzi V., Morasca S., Taibi D. and Tosi D. "A study on OSS Marketing and Communication Strategies" OSS 2012, pp 338-343, 2012.
- C4 Lenarduzzi V. and Taibi D. "Can Functional Size Measures Improve Effort Estimation in SCRUM?". Ninth International Conference on Software Engineering Advances (ICSEA 2014), Nice (France) October 14-16, 2014, pp 173-178.
- C5 Lenarduzzi V., Morasca S. and Taibi D. "Estimating Software Development Effort Based on Phases". 40th Euromicro Conference on Software Engineering and Advanced Applications (EUROMICRO2014), Verona (Italy) August 27-29, 2014, pp 305-308.
- C6 Lenarduzzi V., Lunesu I., Matta M. and Taibi D. "Functional Size Measures and Effort Estimation in Agile Development: A Replicated Study". Agile Processes, in Software Engineering, and Extreme Programming (XP2015), Helsinki (Finland), May 25-29, 2015, pp 105-116.
- C7 Lenarduzzi V. "Could social factors influence the effort software estimation?" 7th International Workshop on Social Software Engineering (SSE 2015), Bergamo (Italy), 2015, pp 21-24.
- C8 Taibi D., Lenarduzzi V., Ovais Ahmad M., Liukkunen K., Lunesu I., Matta M., Fagerholm F., Münch J., Pietinen S., Tukiainen M., Fernández-Sánchez C., Garbajosa J. and Systä K. "Free Innovation Environments: Lessons learned from the Software Factory Initiatives". Tenth International Conference on Software Engineering Advances (ICSEA 2015) Barcelona (Spain), November 15-20, 2015.
- C9 Taibi D., Janes A. and Lenarduzzi V. "Towards a Lean Approach to Reduce Code Smells Injection: An Empirical Study". Agile Processes, in Software Engineering, and Extreme Programming (XP2016), Edinburgh (United Kingdom), 2016 May 24-27, pp 300-304
- C10 D. Taibi and V. Lenarduzzi. "MVP explained: A Systematic Mapping on the Definition of Minimum Viable Product". 42th Euromicro Conference on Software Engineering and Advanced Applications (SEAA2016), Larnaca (Cyprus), Aug 31 – Sept 03, 2016, pp. 112-119.
- C11 L. Lavazza, V. Lenarduzzi and D. Taibi "Towards Component-Aware Function Point Measurement". International Conference on Software Process and Product Measurement (IWSM Mensura 2016), Berlin (Germany), 04-07 October 2016, pp. 35-44.
- C12 D. Taibi, V. Lenarduzzi, A. Janes, K. Liukkunen and M.O. Ahmad. "Comparing Requirements Decomposition within the Scrum, Scrum with Kanban, XP, and Banana Development Processes". Agile Processes, in Software Engineering, and Extreme Programming (XP2017), Cologne (Germany), May 22-26, 2017, pp 68-83.
- C13 A. Janes, V. Lenarduzzi, and A.C. Stan. "A Continuous Software Quality Monitoring Approach for Small and Medium Enterprises", 8th ACM/SPEC on International Conference on Performance Engineering Companion (ICPE '17), pp. 97-100, 2017
- C14 D. Taibi, V. Lenarduzzi, P. Diebold and I. Lunesu. "Operationalizing the Experience Factory for Effort Estimation in Agile Processes" International Conference on Evaluation and Assessment in Software Engineering (EASE2017), Karlskrona (Sweden), June 15-16, 2017.
- C15 D. Taibi, V. Lenarduzzi, K. Liukkunen and M.O. Ahmad. "Comparing Communication Effort within the Scrum, Scrum with Kanban, XP, and Banana Development Processes". International Conference on Evaluation and Assessment in Software Engineering (EASE2017), Karlskrona (Sweden), 2017 June 15-16.
- C16 V. Lenarduzzi, A. C. Stan, D. Taibi, D. Tosi and G. Venters. "A Dynamical Quality Model to Continuously Monitor Software Maintenance". 11th European Conference on Information Systems Management (ECISM2017), 2017.
- C17 D. Tosi, V. Lenarduzzi, S. Morasca, D. Taibi, Experimenting Traditional and Modern Reliability Models in a 3-Years European Software Project. 11th European Conference on Information Systems Management (ECISM2017), 2017.
- C18 D. Taibi, V. Lenarduzzi, C. Pahl and A. Janes. "Microservices in Agile Software Development: First results on Issues, Advantages, and Disadvantages". First International Workshop on Microservices for Agile software development (WMSA17), Cologne, Germany, 2017, In Press.

- C19 V. Lenarduzzi, A. Sillitti and D. Taibi. "Analyzing Forty Years of Software Maintenance Models". International Conference on Software Engineering (ICSE2017). Buenos Aires, Argentina, 2017.
- C20 V. Lenarduzzi, A. C. Stan, D. Taibi, G. Venters and M. Windegger. "Prioritizing Corrective Maintenance Activities for Android Applications: An Industrial Case Study on Android Crash Reports" 10th International Conference on Software Quality Days, SWQD 2018; Vienna; Austria; 16-20 January 2018.
- C21 Y. Borgianni, V. Lenarduzzi, F. Rotini and D. Taibi. "Bringing Simulated Ideation in a Web Environment: Students' Evaluations of a Basic Software Release" 5th International Conference on Design Creativity (ICDC2018); Bath; UK; 31 Jan - 02 Feb 2018.
- C22 D. Taibi, V. Lenarduzzi and C. Pahl. "Architectural patterns for microservices: a systematic mapping study" 8th International Conference on Cloud Computing and Services Science (CLOSER2018), 2018.
- C23 V. Lenarduzzi and O. Sievi-Korte. "On the negative impact of team independence microservices software development" 2th International Workshop on Microservices: Agile and DevOps Experience (MADE18), 19th International Conference on Agile Software Development Companion, 2018
- C24 F. Auer, M. Felderer and V. Lenarduzzi. "Towards Defining a Microservice Migration Framework" 2th International Workshop on Microservices: Agile and DevOps Experience (MADE18), 19th International Conference on Agile Software Development Companion, 2018
- C25 V. Lenarduzzi, M. I. Lunesu, M. Marchesi and R. Tonelli. "Blockchain applications for Agile methodologies" 19th International Conference on Agile Software Development (XP2018), 2018
- C26 V. Lenarduzzi and M. I. Lunesu. "The Lean Strategies: A tale of user-driven innovation processes" 19th International Conference on Agile Software Development (XP2018), 2018
- C27 L. Pellegrini and V. Lenarduzzi. "Are Code smells the root cause of faults? A continuous experimentation approach" 19th International Conference on Agile Software Development (XP2018), 2018
- C28 V. Lenarduzzi and O. Sievi-Korte. "Software Components Selection in Microservices-based Systems" 19th International Conference on Agile Software Development (XP2018), 2018
- C29 M. O. Ahmad, V. Lenarduzzi, M. Oivo and D. Taibi. "Lessons Learned on Communication Channels and Practices in Agile Software Development" 2nd International Conference on Lean and Agile Software Development, 2018
- C30 V. Lenarduzzi and D. Taibi. "Microservices, Continuous Architecture, and Technical Debt Interest: An Empirical Study" Euromicro Conference on Software Engineering and Advanced Applications (SEAA), 2018
- C31 O.P. Heinisuo, V. Lenarduzzi, D. Taibi. "Asterism: Decentralized File Sharing Application for Mobile Devices". IEEE International Conference on Mobile Cloud Computing, Services, and Engineering. Apr. 2019
- C32 V. Lenarduzzi, D. Tosi, L. Lavazza and S. Morasca. "Why Do Developers Adopt Open Source Software? Past, Present and Future". 15th International Conference on Open Source Systems (OSS2019). May 2019.
- C33 N. Saarimäki, V. Lenarduzzi and D. Taibi. "On the diffuseness of code technical debt in open source projects". International Conference on Technical Debt (TechDebt 2019). May 2019
- C34 N. Saarimäki, M.T. Baldassarre, V. Lenarduzzi and Simone Romano "On the Accuracy of SonarQube Technical Debt Remediation Time" 45th Euromicro Conference on Software Engineering and Advanced Applications (SEAA2016)
- C35 V. Lenarduzzi, N. Saarimäki and D. Taibi. "The Technical Debt Data Set" PROMISE 2019, 2019
- C36 V. Lenarduzzi, A. Martini, D. Taibi and D.A. Tamburri. "Surgically-Precise Technical Debt Estimation via Machine-Learning Approaches: A Preliminary Investigation" Maltesque 2019.
- C37 V. Lenarduzzi, T. Orava, K. Systa and D. Taibi. "Mitigating technical debt in SMEs". ESEM Industrial Track 2019. (Jufo 2)
- C38 V. Lenarduzzi, D. Fucci "Toward an approach to manage Requirement Technical Debt" ESEM Vision Track 2019 (Jufo 2)
- C39 V. Lenarduzzi, F. Lomio, D. Taibi and H. Huttunen. "Are SonarQube rules inducing Bugs". SANER 2020.
- C40 V. Lenarduzzi, F. Palomba, D.A. Tamburri and D. Taibi. "OpenSZZ: A Free, Open-Source, Web-Accessible Implementation of the SZZ Algorithm" ICPC 2020.
- C41 I. Pigazzini, F. Arcelli Fontana, V. Lenarduzzi, and D. Taibi, "Towards Microservice Smells Detection" International Conference on Technical Debt (TechDebt 2020), 2020.
- C42 T. Kilamo, V. Lenarduzzi, T. Ahoniemi, A. Jaaki, J. Rahikkala and T. Mikkonen. How the Cathedral Embraced the Bazaar, and the Bazaar Became a Cathedral. OSS 2020.
- C43 A. Janes, and V. Lenarduzzi. "Towards an Approach to Identify Obsolete Features on Importance and Technical Debt" SEEA Euromicro 2020

- C44 V. Lenarduzzi, D. Taibi, D. Tosi, L. Lavazza and S. Morasca. "20 Years of Evaluation, Selection, and Adoption of Open Source Software. A Systematic Literature Review" SEEA Euromicro 2020
- C45 V. Lenarduzzi, D. Fucci, D. Mendez. On the Perceived Harmfulness of Requirement Smells: An Empirical Study. REFSQ 2020 Live Studies Track.
- C46 V. Lenarduzzi, V. Mandic, A. Katin, and D. Taibi. An Empirical Study on the Technical Debt Remediation by Junior Developers. ESEM Emerging Results 2020 (Jufo 2)
- C47 N. Saarimaki, V. Lenarduzzi, S. Vegas, N. Juristo, and D. Taibi. "Can Cohort Studies be Used in Empirical Software Engineering?" ESEM Emerging Results 2020 (Jufo 2)
- C48 S. Lujan, F. Pecorelli, F. Palomba, A. De Lucia, and V. Lenarduzzi. A Preliminary Study on the Adequacy of Static Analysis Warnings with Respect to Code Smell Prediction. 4th International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTesQuE '20). 2020
- C49 R. Capilla, T. Mikkonen, C. Carrillo, F. Arcelli Fontana, I. Pigazzini, V. Lenarduzzi. Impact of Opportunistic Reuse Practices to Technical Debt. International Conference on Technical Debt (TechDebt2021), 2021
- C50 V. Lenarduzzi, O. Dieste, D. Fucci, S. Vegas. Towards a Methodology for Participant Selection in Software Engineering Experiments. A Vision of the Future. ESEM Emerging Results 2021 (Jufo 2)
- C51 V. Lenarduzzi, A. Martini, N. Saarimaki, D.A. Tamburri. Technical Debt Impacting Lead-Times: An Exploratory Study. SEEA Euromicro 2021.
- C52 C. Aguilera González, L. Albors Zumel, J. Antonanzas Acero, S. Rabanaque Rodriguez, V. Lenarduzzi, S. Martinez-Fernández. "A preliminary investigation of developer profiles based on their activities and code quality: Who does what?" International Conference on Software Quality, Reliability, and Security, 2021
- C53 G. Sellitto, E. Iannone, Z. Codabux, V. Lenarduzzi, A. De Lucia, F. Palomba, F. Ferrucci. "Toward Understanding the Impact of Refactoring on Program Comprehension" International Conference on Software Analysis, Evolution and Reengineering (SANER2022). 2022
- C54 H. Nguyen, F. Lomio, F. Pecorelli, V. Lenarduzzi. "PANDORA: Continuous Mining Software Repository and Dataset Generation" International Conference on Software Analysis, Evolution and Reengineering (SANER2022). 2022
- C55 N. Saarimaki, S. Moreschini, F. Lomio, R. Peñaloza, V. Lenarduzzi. "Towards a Robust Approach to Analyze Time-Dependent Data in Software Engineering" International Conference on Software Analysis, Evolution and Reengineering (SANER2022). 2022
- C56 R. Luukkainen, J. Kasurinen, U. Nikula, V. Lenarduzzi. "ASPA: A Static Analyser to Support Learning and Continuous Feedback on Programming Courses. An Empirical Validation" International Conference on Software Engineering: Software Engineering Education and Training Track (ICSE-SEET) 2022
- C57 Valentina Golendukhina, Valentina Lenarduzzi, Michael Felderer. "What is Software Quality for AI Engineers? Towards a Thinning of the Fog" International Conference on AI Engineering – Software Engineering for AI (CAIN2022) 2022
- C58 O. Borges, V. Lenarduzzi, R. Prikladnicki. "Preliminary insights to enable automation of the software development process in software StartUps: an investigation study from the use of artificial intelligence and machine learning" International Conference on AI Engineering – Software Engineering for AI (CAIN2022) 2022(CAIN2022) 2022
- C59 D. Amoroso d'Aragona, F. Pecorelli, S. Romano, G. Scanniello, M. T. Baldassarre, A. Janes, V. Lenarduzzi. "CATTO: Just-in-time Test Case Selection and Execution" International Conference on Software Maintenance and Evolution (ICSME2022) 2022
- C60 F Lomio, L. Pascarella, F. Palomba, V. Lenarduzzi. "Regularity or Anomaly? On The Use of Anomaly Detection for Fine-Grained Just-in-Time Defect Prediction" Euromicro2022. 2022
- C61 F Lomio, S. Moreschini, X. Li, V. Lenarduzzi. "Anomaly Detection in Cloud-Native Systems" Euromicro2022. 2022
- C62 O. Dieste, D. Fucci, V. Lenarduzzi, S. Vegas. "Population Characterization Comes Before Sample Selection" RoPES 2022, 2022
- C63 D. Amoroso d'Aragona, F. Pecorelli, M.T. Baldassarre, D. Taibi, V. Lenarduzzi. "Technical Debt Diffuseness in the Apache Ecosystem: A Differentiated Replication" International Conference on Software Analysis, Evolution and Reengineering (SANER2023). 2023
- C64 D. Amoroso d'Aragona, L. Pascarella, A. Janes, V. Lenarduzzi, D. Taibi. "Microservices Logical Coupling. A Preliminary Validation". International Conference on Software Architecture (ICSA2023). 2023

- C65 D. Amoroso d'Aragona, L.Pascarella, A. Janes, V. Lenarduzzi, R. Penaloza, D. Taibi. Breaks and Code Quality: Investigating the Impact of Forgetting on Software Development. A Registered Report. ESEM2023 Registered Report. 2023
- C66 V. Lenarduzzi, M. Isomursu. AI Living Lab: Quality Assurance for AI-based Health systems. CAIN2023. 2023.
- C67 N. Saarimäki, M. Robredo, S. Vegas, N. Juristo, D. Taibi, V. Lenarduzzi. Does Microservices Adoption Impact the Development Velocity? A Cohort Study. A Registered Report. ICSME2023 Registered Report. 2023
- C68 I Gorton, F Khomh, V Lenarduzzi, C Menghi, D Roman. Software Architectures for AI Systems: State of Practice and Challenges. Software Architecture: Research Roadmaps from the Community (book chapter). 2023
- C69 D Amoroso d'Aragona, X Li, T Cerny, A Janes, V Lenarduzzi, D Taibi. One Microservice per Developer: Is This the Trend in OSS? ESOC2023, 2023
- C70 M. Esposito, S. Moreschini, V. Lenarduzzi, D. Falessi. Can We Trust the Default Vulnerabilities Severity? International Working Conference on Source Code Analysis and Manipulation (SCAM2023)
- C71 Shengyu Zhao, Xiaoya Xia, Brian Fitzgerald, Xiaozhou Li, Valentina Lenarduzzi, Davide Taibi, Rong Wang, Wei Wang, Chunqi Tian. OpenRank Leaderboard: Motivating Open Source Collaborations Through Social Network Evaluation in Alibaba. International Conference on Software Engineering (ICSE SEET 2024). 2024
- C72 M. Robredo, N. Saarimäki, R. Peñaloza, D. Taibi, V. Lenarduzzi. A Comparison between Multivariate Time Series Analysis and Machine Learning Techniques for Technical Debt Prediction. 7th International Conference on Technical Debt (TechDebt 2024). 2024
- C73 S. Moreschini, L. Coba, V. Lenarduzzi. Towards a Technical Debt for Recommender System. 7th International Conference on Technical Debt (TechDebt 2024). 2024
- C74 X Li, F Calefato, V Lenarduzzi, D Taibi. Toward Collaboration Optimization in Microservice Projects based on Developer Personalities. International Conference on Software Architecture (ICSA). 2024
- C75 M. Esposito, F. Palagiano, V. Lenarduzzi, D. Taibi. Beyond Words: On Large Language Models Actionability in Mission-Critical Risk Analysis. ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM). 2024
- C76 T. Cerny, Md Showkat Hossain Chy, M.A. Rahman Arju, K. Sooksatra, A.S. Abdelfattah, V. Lenarduzzi. A Multi-variant Benchmark for Microservice Systems in Software Engineering Research. European Conference on Software Architecture (ECSA). 2024
- C77 M. Robredo, M. Esposito, F. Palomba, R. Peñaloza, V. Lenarduzzi. In Search of Metrics to Guide Developer-Based Refactoring Recommendations. ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM). 2024
- C78 M. Robredo, M. Esposito, F. Palomba, R. Peñaloza, V. Lenarduzzi. Analyzing the Ripple Effects of Refactoring. A Registered Report. IEEE International Conference on Software Maintenance and Evolution (ICSME). 2024
- C79 M. Robredo, N. Saarimäki, V. Lenarduzzi, S. Vegas, D. Taibi. Cohort Studies for Mining Software Repositories. International Conference on Mining Software Repositories (MSR). 2024
- C80 X. Li, V. Lenarduzzi, D. Taibi. A Data-Driven Analysis of Player Personalities for Different Game Genres. ACM International Workshop on Foundations of Applied Software Engineering for Games. 2024
- C81 M. Esposito, F. Palagiano, V. Lenarduzzi, D. Taibi. On Large Language Models in Mission-Critical IT Governance: Are We Ready Yet? International Conference on Software Engineering (ICSE SEET 2025). 2025

Date

13/01/2025

Place

Oulu