Fabio Palomba, Ph.D.

Curriculum Vitae – 3rd November 2025

1 Personal Information

Name: Fabio Palomba
Date of Birth: 3rd August, 1989
Place of Birth: Naples, Italy

Address: Via Giovanni Falcone, 41
84081 Baronissi (SA), Italy
Phone: +39 3477460798
E-mail: fpalomba@unisa.it
Website: https://fpalomba.github.io/
Google Scholar profile: https://goo.gl/dorFrh

2 Job Positions

1st March 2025 – Present
Associate Professor
Department of Computer Science - University of Salerno, Italy

1st March 2022 – 28th February 2025
Senior Assistant Professor (RTD-B)
Department of Computer Science - University of Salerno, Italy

1st January 2020 – 28th February 2022
Junior Assistant Professor (RTD-A)
Department of Computer Science - University of Salerno, Italy

1st January 2018 – 31st December 2019
Senior Research Associate
Zurich Empirical Software Engineering Team - University of Zurich, Switzerland

1st January 2017 – 31st December 2017
Post-Doc Researcher
Delft University of Technology (The Netherlands) and Eindhoven University of Technology (The Netherlands)

3 Research Internships and Visiting

30th June 2025 – 7th July 2025
Visiting Professor at the Gran Sasso Science Institute, L'Aquila, Italy
Visitor Professor at the Gran Sasso Science Institute (GSSI). During the visiting period, I delivered an advanced Ph.D. course entitled "Software Engineering with and for Artificial Intelligence".

24th June 2024 – 1st July 2024
Visiting Professor at the Gran Sasso Science Institute, L'Aquila, Italy
Visitor Professor at the Gran Sasso Science Institute (GSSI). During the visiting period, I delivered an advanced Ph.D. course entitled "Software Engineering with and for Artificial Intelligence".

1st February 2021 – 31st July 2021
Visiting Professor at the Jheronimus Academy of Data Science, s'Hertogenbosch, The Netherland
6 months as Visitor Professor at the Jheronimus Academy of Data & Engineering (JADE) Lab. The research conducted in this period resulted in the definition of novel methods and techniques for the application of machine learning and natural language processing to various software engineering domains, like code quality of infrastructure code as well as the analysis of functional and non-functional requirements of mobile applications.

1st March 2016 – 31st May 2016
Visiting PhD Student at the Delft University of Technology, Delft, The Netherland
3 months as Visitor Student. The research conducted resulted in the definition of a code smell detection approach based on textual information, and its empirical evaluation [C11, J8].

4 QUALIFICATIONS/LICENCES

2020 **ITALIAN SCIENTIFIC QUALIFICATION AS FULL PROFESSOR.**
Sector 01/B1 – Informatica.
Evaluation available at: https://asn18.cineca.it/pubblico/miur/esito-abilitato/01%252FB1/1/4.

2019 **ITALIAN SCIENTIFIC QUALIFICATION AS FULL PROFESSOR.**
Sector 09/H1 – Sistemi di Elaborazione delle Informazioni
Evaluation available at: https://asn18.cineca.it/pubblico/miur/esito-abilitato/09%252FH1/1/3.

2019 **ITALIAN SCIENTIFIC QUALIFICATION AS ASSOCIATE PROFESSOR.**
Sector 01/B1 – Informatica.
Evaluation available at: https://asn18.cineca.it/pubblico/miur/esito/01%252FB1/2/1.

2019 **ITALIAN SCIENTIFIC QUALIFICATION AS ASSOCIATE PROFESSOR.**
Sector 09/H1 – Sistemi di Elaborazione delle Informazioni
Evaluation available at: https://asn18.cineca.it/pubblico/miur/esito/09%252FH1/2/1.

2014 **LICENCE OF COMPUTER ENGINEER**
University of Molise, Italy

5 EDUCATION

2017 **DEGREE OF EUROPEAN DOCTOR OF PHILOSOPHY (PH.D.) IN MANAGEMENT & INFORMATION TECHNOLOGY**
University of Salerno, Italy
Funded by University of Salerno and University of Molise.
Advisor: Prof. Andrea De Lucia

2013 **MASTER'S DEGREE (M.SC.) IN COMPUTER SCIENCE**
University of Salerno, Italy
110/110 magna cum laude and special commendation by the commission
Advisor: Prof. Andrea De Lucia

2011 **BACHELOR'S DEGREE (B.SC.) IN COMPUTER SCIENCE**
University of Molise, Italy
110/110 cum laude
Advisor: Prof. Rocco Oliveto

6 RESEARCH

6.1 SUMMARY OF THE MAIN RESEARCH TOPICS AND ACHIEVEMENTS

My research activity is around Software Engineering and is mainly focused (but not limited) to the following topics:

- Bad Code Smell Detection and Management;
- Test Code Quality;
- Bug Prediction;
- Mobile Software Engineering;
- Social Aspects in Software Engineering;
- Traceability Management;

- Software Engineering with and for Artificial Intelligence;
- Metaverse Engineering;
- Mining Software Repositories;
- Empirical Software Engineering.

In these research topics **I have published over 200 papers** in international journals and conferences indexed in DBLP, SCOPUS (number of citations = 7,876; H-index = 51), and Google Scholar (number of citations = 13,168; H-index = 63). My overall m-index (that is, the H-index normalized by the number of years of activity) is 4.9 and 6 considering SCOPUS and Google Scholar, respectively. I have been the recipient of multiple awards, including:

- Since 2024, I am also included in the **World's Top 2% Scientists** ranking, a highly prestigious global recognition compiled annually by Stanford University in collaboration with Elsevier (https://topscinet.com). The ranking evaluates over 200,000 researchers worldwide across 22 scientific fields and 174 sub-disciplines, using data from Scopus and standardized bibliometric indicators, including total citations, H-index, co-authorship-adjusted HM-index, citation position metrics, and a composite C-score.

- **IEEE/TCSE Rising Star Award (2023)**, a highly prestigious international recognition conferred annually by the IEEE Technical Council on Software Engineering (TCSE), i.e., the global governing body of IEEE activities in software engineering, to a single early- to mid-career researcher worldwide. The award honors individuals who have demonstrated outstanding research leadership and made influential, sustained contributions to the advancement of software engineering theory, practice, and community service. I am only the second Italian researcher ever to receive this distinction since its establishment.

- **IEEE Computer Society Best Thesis Award (2017)**, a prestigious national award conferred annually by the IEEE Computer Society Italy Section to the best doctoral dissertation in computer science and engineering. I am the only researcher in software engineering ever to have received this distinction.

- **Two ACM/SIGSOFT Distinguished Paper Awards**, **one IEEE/TCSE Distinguished Paper Award**, and **one Best Paper Award Honorable Mention**, awarded to papers ranked among the top 1–2% of submissions at flagship ACM/IEEE conferences, like ICSE, ASE, and CSCW.

- **Bronze Medal at the ACM/SIGSOFT Student Research Competition (2016)**, awarded at an international ACM competition recognizing graduate students for the soundness, originality, and quality of their research contributions.

- **20 Outstanding/Distinguished Reviewer Awards**, received from leading journals and conferences (e.g., IEEE Transactions on Software Engineering, Empirical Software Engineering, and ICSE) for high-quality peer-review service.

My research significantly contributes to the **design and evolution of efficient and dependable software systems**, particularly in the context of **distributed**, **autonomous**, and **AI-enabled applications**. I have developed and evaluated methodologies to enhance **reliability** and **performance**, **especially in critical environments such as mobile, cloud-based, and AI-intensive systems.** These contributions are reflected in my projects (e.g., PRIN, SNSF Ambizione) and publications.

In the following, I describe the main research topics of interest.

Bad Code Smell Detection and Management: Bad code smells have been defined by Martin Fowler as symptoms of poor design and implementation choices. Bad smells are usually introduced in software systems because developers poorly conceived the design of a code component. Complex Class, *i.e.,* a class that contain complex methods and it is very large in terms of LOC; or God Class, *i.e.,* a class that does too much/knows too much about other classes, are only some examples of a plethora of bad smells identified in well-known catalogues. Recent empirical studies showed that code smells hinder comprehensibility and possibly increase change- and fault- proneness. For these reasons, the main research topics in this area are the definition of new approaches able to (i) detect bad code smells in the source code; (ii) study the reason behind their introduction and removal; (iii) study the impact of code smells on non-functional attributes of source code, and (iv) recommend their removal via appropriate refactoring operations.

Test Code Quality: Test cases form the first line of defense against the introduction of software faults. As such, with the help of testing framework like, for instance, Junit developers create test methods and run these periodically on their code.

To support the testing activities, the research community mainly focused on the definition of techniques and tools for (i) the automatic generation of test cases, or (ii) the improvement of the effectiveness of test classes with respect to code coverage. In this context, a little knowledge on the impact and the usefulness of code quality is available. The main research topic in this area relates to the definition of quality-aware methodologies for the automatic generation of test cases and the investigation of the impact of test smells, i.e., symptoms of the presence of bad design choices in test code, on the effectiveness and the maintainability of test cases.

Bug Prediction: Allocating resources for the testing and the verification of all the parts of a large software system is a cost-prohibitive task. To alleviate this issue, prediction models able to identify portions of source code more prone to contain bugs have been the object of several studies. **Bug prediction models are essential for ensuring the reliability of complex and distributed software systems.** The main research topic is the definition of accurate prediction models that, on the one hand use a suitable set of predictors able to characterize the bug-proneness of code components, and on the other hand is able to use appropriate machine learning techniques to distinguish those components affected by bug.

Mobile Software Engineering: According to recent statistics, over two billion users rely on smartphones and tablets to perform their daily activities. Not only do users play games or send messages, but they also use mobile apps for every type of need, including social and emergency connectivity. Mobile software engineering is the field responsible for the definition of techniques able to improve the life of both mobile developers and end users. The main research topic includes the application of mining software repositories techniques in the context of user reviews, with the goal of extracting actionable knowledge to incorporate in novel techniques and tools helping developers in performing their activities. **The techniques developed for analyzing mobile applications often target distributed environments and require efficient and dependable execution models.**

Social Aspects in Software Engineering: The success of software engineering projects is in large part dependent on social and organizational aspects of the development community. In this context, the role played by social aspects in software engineering has been mainly investigated in terms of socio-technical congruence, i.e., the coordination between social relationships and technical aspects of the source code. However, a few knowledge on the impact of social debt, i.e., sub-optimal characteristics or patterns across the organizational structure around a software system that may lead to additional unforeseen project costs, is available. Key research topics in this area regard **the understanding of the interplay between social and technical debt**, as well as the **definition of techniques and tools able to make developers and project managers aware of the presence of social debt in the community**.

Traceability Management: Traceability has been defined as "the ability to describe and follow the life of an artifact, in both a forwards and backwards direction". Traceability links help software engineers to understand the relationships and dependencies among various software artifacts (requirements, code, tests, etc.) developed during the software lifecycle. The two main research topics related to the traceability management are **event-based systems for traceability management and information retrieval-based methods and tools** supporting the software engineer in the traceability link recovery.

Software Engineering with and for Artificial Intelligence: Software Engineering with and for Artificial Intelligence (AI) involves leveraging AI techniques and methodologies to enhance various aspects of software engineering processes and outcomes. **These methodologies are foundational for the development of autonomous systems that need to ensure high reliability and performance under uncertain environments**. The two main research areas relate to improving the way AI can assist developers during software engineering tasks and defining novel software engineering practices and instruments to enable trustworthy AI. In most cases, advances in these fields are driven by empirical analyses and experiments aiming at informing the synergies between software engineering and artificial intelligence.

Metaverse Engineering: The metaverse marks a new frontier in digital interaction, merging physical and virtual realities into persistent, immersive, and collaborative environments. Engineering such systems introduces challenges beyond traditional software development, including 3D content generation, interoperability, user embodiment, ethics, and scalability. My research focuses on **defining methods, tools, and empirical foundations for the systematic and responsible development of metaverse applications**. Key topics include: (i) software engineering practices and frameworks for metaverse development; (ii) AI- and photogrammetry-based automation of 3D scene creation; (iii) educational metaverses and the design of immersive learning experiences; and (iv) ethical and human-centered aspects, such as emotion recognition, privacy, and fairness.

Mining Software Repositories: Software repositories such as source control systems, archived communications between project personnel, and defect tracking systems are used to help in managing the progress of software projects. Software practitioners and researchers recognize the benefits of mining this information to support the maintenance and the evolution of software systems by improving software design/reuse and empirically validating novel ideas and techniques.

Research is now proceeding to uncover the ways in which mining these repositories can help **to understand software development and software evolution**, **to support predictions about software development**, and **to exploit this knowledge in planning future development**.

Empirical Software Engineering: Empirical software engineering is a sub-domain of software engineering focusing on experiments on software systems (software products, processes, and resources). It is interested in **devising experiments on software**, in **collecting data from these experiments**, and in **devising laws and theories from this data**. Proponents of experimental software engineering advocate that the nature of software is such that we can advance the knowledge on software through experiments only. The scientific method suggests a cycle of observations, laws, and theories to advance science. Empirical software engineering applies this method to software.

6.2 PH.D. STUDENTS ADVISING/CO-ADVISING

To date, I have supervised or am supervising **8 Ph.D. students as main advisor** and **8 Ph.D. students as co-advisor** on topics spanning **software engineering**, **artificial intelligence**, **metaverse engineering**, and their intersections.

Main Advisor

2025 - current **ALFONSO CANNAVALE**
Ph.D. Student at the University of Salerno, working on topics connected to the testing of machine learning-enabled software systems. Google Scholar page: https://scholar.google.com/citations?user=DbUDUT8AAAAJ&hl=it&oi=ao

2024 - current **ANTONIO DELLA PORTA**
Ph.D. Student at the University of Salerno, working on topics connected to the quality aspects of prompt engineering techniques for Large Language Models. Google Scholar page: https://scholar.google.com/citations?user=tU51c0cAAAAJ&hl=it&oi=ao

2023 - current **GIANMARIO VORIA**
Ph.D. Student at the University of Salerno, working on topics connected to the engineering of fairness properties in machine learning-enabled software systems. Google Scholar page: https://scholar.google.com/citations?user=W6T8YkgAAAAJ&hl=it&oi=ao

2023 - current **VIVIANA PENTANGELO**
Ph.D. Student at the University of Salerno, working on topics connected to the engineering of virtual reality and metaverse environments for educational purposes. Google Scholar page: https://scholar.google.com/citations?user=JLi4PnQAAAAJ&hl=it&oi=ao

2022 - 2025 **GILBERTO RECUPITO**
Ph.D. Student at the University of Salerno, working on topics connected to the analysis, detection, and refactoring of artificial intelligence debt in machine learning-enabled software systems. Google Scholar page: https://scholar.google.com/citations?user=Rl6vnGIAAAAJ&hl=it&oi=ao

2022 - 2025 **VINCENZO DE MARTINO**
Ph.D. Student at the University of Salerno, working on topics connected to the analysis and optimization of non-functional requirements in machine learning-enabled software systems. Google Scholar page: https://scholar.google.com/citations?user=XNgzY0IAAAAJ&hl=it&oi=ao

2020 - 2023 **GIAMMARIA GIORDANO**
Ph.D. Student at the University of Salerno, working on topics connected to the identification of privacy concerns in software projects using artificial intelligence techniques. After the Ph.D., Giammaria is currently a Post-Doc Researcher at the University of Salerno (Italy). Google Scholar page: https://scholar.google.com/citations?user=nrk-z3oAAAAJ&hl=it&oi=ao

2020 - 2023 **EMANUELE IANNONE**
Ph.D. Student at the University of Salerno, working on topics connected to the analysis and automated

detection/refactoring of software vulnerabilities. After the Ph.D., Emanuele is currently a Post-Doc Researcher at the Institute of Software Security at Hamburg University of Technology (Germany). Google Scholar page: https://scholar.google.com/citations?user=tjOanfQAAAAJ&hl=it&oi=ao

Co-Advisor

2022 - 2025 **DARIO DI DARIO**
Ph.D. Student at the University of Salerno, working on topics connected to the engineering of virtual reality and metaverse environments for educational purposes. Main Advisor: Carmine Gravino. Google Scholar page: https://scholar.google.com/citations?user=Zx7w0SYAAAAJ&hl=it&oi=ao

2021 - 2024 **STEFANO LAMBIASE**
Ph.D. Student at the University of Salerno, working on topics connected to the analysis of software ecosystems, with a particular focus on socio-technical concerns. Main Advisor: Prof. Filomena Ferrucci. After the Ph.D., Stefano is currently an Assistant Professor at the Aalborg University (Denmark). Google Scholar page: https://scholar.google.com/citations?user=2fHPEdkAAAAJ&hl=it&oi=ao

2021 - 2024 **GIULIA SELLITTO**
Ph.D. Student at the University of Salerno, working on topics connected to the use of meta-heuristics for the identification of software vulnerabilities. Main Advisor: Prof. Filomena Ferrucci. After the Ph.D., Giulia is currently a High-School Teacher in Computer Science. Google Scholar page: https://scholar.google.com/citations?user=FlHGxnMAAAAJ&hl=it&oi=ao

2020 - 2023 **VALERIA PONTILLO**
Ph.D. Student at the University of Salerno, working on topics connected to test code quality, with a particular focus on the use of artificial intelligence for the identification of flaky tests. Main Advisor: Prof. Filomena Ferrucci. After the Ph.D., Valeria is currently a Post-Doc Researcher at the Gran Sasso Science Institute (Italy). Google Scholar page: https://scholar.google.com/citations?user=rhiPYd4AAAAJ&hl=it&oi=ao

2020 - 2023 **MANUEL DE STEFANO**
Ph.D. Student at the University of Salerno, working on topics connected to the code smell detection and refactoring. Main Advisor: Prof. Andrea De Lucia. After the Ph.D., Manuel is currently a Data Scientist at CINECA (Italy). Google Scholar page: https://scholar.google.com/citations?user=6fELld4AAAAJ&hl=it&oi=ao

2019 - 2022 **LARISSA BRAZ**
Ph.D. Student at the University of Zurich, working on topics connected to the software testing and vulnerabilities - hired under the Ambizione project of which I am scientific coordinator. Main Advisor: Prof. Alberto Bacchelli. After the Ph.D., Larissa is currently a Security Engineer at Google (Switzerland). Google Scholar page: https://scholar.google.com/citations?user=k-Yh9ZQAAAAJ&hl=it&oi=ao

2019 - 2022 **FABIANO PECORELLI**
Ph.D. Student at the University of Salerno, working on topics connected to software testing and code smell detection. Main Advisor: Prof. Andrea De Lucia. After the Ph.D., Fabiano is currently an Associate Professor at Pegaso University (Italy). Google Scholar page: https://scholar.google.com/citations?user=HVvH1tYAAAAJ&hl=it&oi=ao

2017 - 2021 **GIOVANNI GRANO**
Ph.D. Student at the University of Zurich, working on topics connected to software testing. I had the role of mentor in the context of the Giovanni's Ph.D. Main Advisor: Prof. Harald C. Gall. After the Ph.D., Giovanni is currently a Senior Software Engineering at LocalStack (Switzerland). Google Scholar page: https://scholar.google.com/citations?user=UuGF6ScAAAAJ&hl=it&oi=ao

6.3 Research Assistants Advising

To date, I have supervised or am supervising **5 research assistants**, working on projects related to **software engineering** and **artificial intelligence**.

2025 **Matteo Cicalese**
Research Assistant at the University of Salerno, working on topics connected to the security of machine learning-enabled software systems. Google Scholar page: https://scholar.google.com/citations?user=TE-dfuMAAAAJ&hl=it&oi=ao

2024 - 2025 **Alessandra Parziale**
Research Assistant at the University of Salerno, working on topics connected to the fairness of machine learning-enabled software systems. After this experience, Alessandra was admitted as a Ph.D. student at the Gran Sasso Science Institute (GSSI), Italy. Google Scholar page: https://scholar.google.com/citations?user=c7uV7wIAAAAJ&hl=it&oi=ao

2024 - 2025 **Alfonso Cannavale**
Research Assistant at the University of Salerno, working on topics connected to the testing of machine learning-enabled software systems. Google Scholar page: https://scholar.google.com/citations?user=DbUDUT8AAAAJ&hl=it&oi=ao

2022 - 2025 **Alexandra Sheykina**
Research Assistant at the University of Salerno, working on topics connected to the engineering of security of machine learning-enabled software systems. Personal webpage: https://www.linkedin.com/in/alexandra-sheykina-10762895/

2022 **Carmine Ferrara**
Research Assistant at the University of Salerno, working on topics connected to the engineering of fairness properties in machine learning-enabled software systems. After the research fellowship, Carmine is currently a Software Engineer at NTT Data Italy Personal webpage: https://www.linkedin.com/in/carmine-ferrara-67412a167/

7 Teaching

My teaching activity spans Ph.D., Master's, and Bachelor's levels, covering topics in **Artificial Intelligence**, **Software Engineering**, **Software Quality**, and **Empirical Research Methods**. Over my career, I have served as **Lecturer in eight courses** and **Co-lecturer in three courses**, for a **total of eleven distinct courses delivered across Italy, Switzerland, and the Netherlands**. In addition, during my Ph.D. studies, I served as teaching assistant for several undergraduate and graduate courses in software engineering and programming, gaining early experience in academic instruction and student mentoring.

As a Lecturer, I hold full responsibility for course design, development of teaching materials, delivery of lectures and seminars, definition and grading of examinations, and supervision of student projects. As a Co-lecturer, I actively collaborate with the main instructor by delivering selected lectures, supporting laboratory and project-based learning, and contributing to student evaluation and feedback.

My teaching approach integrates **research-driven content**, **active learning**, and **project-oriented assessment**, encouraging students to connect academic knowledge with practical problem-solving and real-world applications.

7.1 Lecturer

Ph.D. Degree Level

2023 - **Scientific Writing and Publishing**

current *Lecturer at the Ph.D. Degree of Computer Science at the University of Salerno. ETCS: 1.5 (9 hours)*
*Webage: https://docenti.unisa.it/027888/didattica?anno=2024&id=516485&cId=10000-2024&pId=N0*N0*S1*

2022 - 2023 **EMPIRICAL RESEARCH METHODS**
Lecturer at the Ph.D. Degree of Computer Science at the University of Salerno. ETCS: 1.5 (9 hours)
*Webage: https://docenti.unisa.it/027888/didattica?anno=2022&id=516492&cId=10000-2022&pId=N0*N0*S2*

2020 – current **PH.D. 101: A SEMINAR CYCLE**
Lecturer at the Ph.D. Degree of Computer Science at the University of Salerno.

Master's Degree Level

2021 - current **SOFTWARE ENGINEERING FOR ARTIFICIAL INTELLIGENCE**
Lecturer at the Master's Degree of Computer Science at the University of Salerno. ETCS: 6 (48 hours)
*Webpage: https://docenti.unisa.it/027888/didattica?anno=2024&id=515112&cId=10007-2016&pId=N0*N0*S2*

2018 - 2022 **SOFTWARE DEPENDABILITY**
Lecturer at the Master's Degree of Computer Science at the University of Salerno. ETCS: 9 (72 hours)
*Webpage: https://docenti.unisa.it/027888/didattica?anno=2021&id=512708&cId=10006-2016&pId=N0*N0*S2*

Bachelor's Degree Level

2020 – current **FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE**
Lecturer at the Bachelor's Degree of Computer Science at the University of Salerno. ETCS: 6 (48 hours)
*Webpage: https://docenti.unisa.it/027888/didattica?anno=2024&id=511550&cId=9999-2017&pId=N0*N0*S1*

2017 – 2018 **ADVANCED SOFTWARE ENGINEERING**
Lecturer at the Bachelor's Degree of Computer Science at the University of Zurich. ETCS: 3 (24 hours)

2018 **SOFTWARE ENGINEERING METHODS**
Lecturer at the Bachelor's Degree of Computer Science at the Delft University of Technology. ETCS: 3 (24 hours)

7.2 CO-LECTURER

Master's Degree Level

2024 - current **SOFTWARE PROJECT MANAGEMENT**
Co-lecturer at the Master's Degree of Computer Science at the University of Salerno. ETCS: 2 (16 hours)
*Webage: https://docenti.unisa.it/027888/didattica?anno=2024&id=507519&cId=10004-2016&pId=N0*N0*S1*

2018 - 2019 **SOFTWARE TESTING**
Co-Lecturer at the Bachelor's and Master's Degrees (joint course) of Computer Science at the University of Zurich. ETCS: 3 (24 hours)

Bachelor's Degree Level

2021 - current **SOFTWARE ENGINEERING**
Co-lecturer at the Bachelor's Degree of Computer Science at the University of Salerno. ETCS: 4.5 (36 hours)
*Webpage: https://docenti.unisa.it/027888/didattica?anno=2024&id=507546&cId=9999-2017&pId=MODULO_3*RESTO_1*S1*

7.3 TEACHING ASSISTANCE

2016 **PROGRAMMING LANGUAGES**
Teaching Assistant in the course of Prof. Maurizio Tucci at the Bachelor Degree of Computer Science at the University of Salerno

2016 **PROGRAMMING LANGUAGES II**
Teaching Assistant in the course of Prof. Carmine Gravino at the Bachelor Degree of Computer Science at the University of Salerno

2016 **SOFTWARE ENGINEERING II: MAINTENANCE, EVOLUTION, AND SOFTWARE PROJECT MANAGEMENT**
Teaching Assistant and Students' Projects Evaluator in the course of Prof. Andrea De Lucia at the Master Degree of Computer Science at the University of Salerno

2016 **SOFTWARE ENGINEERING I**
Teaching Assistant and Students' Projects Evaluator in the course of Prof. Andrea De Lucia at the Bachelor Degree of Computer Science at the University of Salerno

2015 **SOFTWARE ENGINEERING II: MAINTENANCE AND TESTING**
Teaching Assistant and Students' Projects Evaluator in the course of Prof. Andrea De Lucia at the Master Degree of Computer Science at the University of Salerno

2015 **SOFTWARE ENGINEERING I**
Teaching Assistant and Students' Projects Evaluator in the course of Prof. Andrea De Lucia at the Bachelor Degree of Computer Science at the University of Salerno

2014 **IT PROJECT AND SERVICE MANAGEMENT**
Teaching Assistant and Students' Projects Evaluator in the course of Prof. Andrea De Lucia at the Master Degree of Management and Information Technology at the University of Salerno

2014 **DECISION SUPPORT SYSTEMS**
Teaching Assistant and Students' Projects Evaluator in the course of Prof. Andrea De Lucia at the Master Degree of Business Economy at the University of Salerno.

7.4 THESES ADVISING/CO-ADVISING

I supervise a significant number of Bachelor's and Master's theses each academic year. This is made possible by adopting a **structured and scalable supervision model** that balances efficiency with quality. Communication is primarily managed through **asynchronous channels** (e.g., Discord), enabling **continuous interaction** while reducing the **overhead of frequent meetings**. Supervision is further supported by **a team of Ph.D. students who serve as co-advisors**, providing day-to-day guidance and complementary expertise.

At the beginning of each thesis, I establish a clear **supervision framework in collaboration with the student**, defining research objectives, methodological approach, and key milestones. This shared plan fosters **autonomy** and **self-organization** while ensuring consistent alignment with the broader research direction. Students submit **weekly asynchronous progress updates**, allowing me to **monitor** their work and promptly address emerging issues. When necessary, particularly in the case of conceptual or technical challenges, **I schedule focused synchronous meetings** to provide targeted feedback and remove obstacles. This model enables the effective supervision of multiple concurrent theses while promoting independence, accountability, and a **collaborative research culture within my group**.

To date, **I have served as the main advisor of more than 400 theses in total,** including approximately 330 Bachelor's theses and 80 Master's theses. The significant increase in the number of supervised students is largely due to my role as Lecturer of the course Fundamentals of Artificial Intelligence, which attracts a high number of enrolled students and project-based theses each academic year. Several of my students have published the result of their thesis work in international venues. For the sake of readability, the following reports an aggregated overview of the theses I have supervised in recent years. The complete list is available upon request.

Year	Bachelor's Theses	Master's Theses	Total	Role
2025	62	10	72	Main advisor; strong expansion due to my growing presence in Bachelor's and Master's courses.
2024	90	20	110	
2023	85	19	104	
2022	88	14	102	
2021	10	4	14	
2020	0	2	2	Co-Advisor; involved in the joint supervision of international students.
2019	1	3	4	
2018	1	0	1	
2017	1	0	1	
Total	**348**	**72**	**420**	

8 PROFESSIONAL ACTIVITIES

8.1 COMMUNITY SHEPHERDING ACTIVITIES

2025-2028 **ACM/SIGSOFT EXECUTIVE COMMITTEE MEMBER & CHAIR OF THE ACM/SIGSOFT CAPS PROGRAM**

The Association for Computing Machinery (ACM) Special Interest Group on Software Engineering (SIGSOFT) is the world's leading professional organization dedicated to advancing the theory and practice of software engineering. As a member of the ACM/SIGSOFT Executive Committee Member (https://www2.sigsoft.org/execcontact/), I serve as Chair of the ACM/SIGSOFT Travel Support and Childcare Assistance at Conferences Program (CAPS, https://www2.sigsoft.org/caps/capsmain/). The program aims at providing support for students and professionals to attend the conferences and events sponsored by ACM SIGSOFT. CAPS also provides support for childcare. My role is to define and apply a process for ranking applications for students to attend SIGSOFT-sponsored conferences to receive travel funding.

8.2 STEERING COMMITTEE MEMBERSHIPS

2025-current **SANER – THE INTERNATIONAL CONFERENCE ON SOFTWARE ANALYSIS, EVOLUTION, AND REENGINEERING**
ICORE CONFERENCE RANKING: A
Steering Committee Member – Elected in 2025.
Link: https://conf.researchr.org/committee/saner-2026/saner-2026-steering-committee

2021-2024 **ICPC – THE INTERNATIONAL CONFERENCE ON PROGRAM COMPREHENSION**
ICORE CONFERENCE RANKING: A
Steering Committee Member – Elected in 2021.
Link: https://www.program-comprehension.org/steeringcommittee.html

2020-2022 **MALTESQUE - THE INTERNATIONAL WORKSHOP ON MACHINE LEARNING TECHNIQUES FOR SOFTWARE QUALITY EVALUATION**
Steering Committee Member – Elected in 2020.

8.3 ORGANIZATION COMMITTEE PARTICIPATION (SELECTED)

8.3.1 ORGANIZATIONAL COMMITTEE (CO-)CHAIR

2026 **EXPLAINABLE AND TRUSTWORTHY APPLICATIONS TRACK CHAIR**
52nd Euromicro Conference Series on Software Engineering and Advanced Applications (SEAA), Krakow, Poland.
ICORE CONFERENCE RANKING: B

2026 **JOURNAL FIRST TRACK CHAIR**
9th International Conference on Technical Debt (TechDebt), Rio de Janeiro, Brazil.
ICORE CONFERENCE RANKING: B

2025 **STUDENT VOLUNTEER CHAIR**
51st Euromicro Conference Series on Software Engineering and Advanced Applications (SEAA), Salerno, Italy.
ICORE CONFERENCE RANKING: B

2024 **LOCAL ARRANGEMENT CO-CHAIR**
17th International Conference on Evaluation and Assessment in Software Engineering (EASE 2024), Salerno, Italy.
ICORE CONFERENCE RANKING: A

2024 **PROGRAM CO-CHAIR**
IEEE International Conference on Software Analysis, Engineering, and Reengineering (SANER 2024), Rovaniemi, Finland.
ICORE CONFERENCE RANKING: A

2023 **ASSOCIATE CHAIR**
ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2023), Minneapolis, USA.
ICORE CONFERENCE RANKING: A

2022 **NEW IDEAS AND EMERGING RESULTS (NIER) TRACK CO-CHAIR**
International Conference on Automated Software Engineering (ASE 2022), Ann Arbor, Michigan, USA
ICORE CONFERENCE RANKING: A*

2022 **NEW IDEAS AND EMERGING RESULTS (NIER) TRACK CO-CHAIR**
International Conference on Mobile Software Engineering and Systems (MobileSoft 2022), Pittsburgh, Pennsylvania, USA
ICORE CONFERENCE RANKING: N/A

2022 **NEW IDEAS AND EMERGING RESULTS (NIER) TRACK CO-CHAIR**
International Conference on Source Code Analysis and Manipulation (SCAM 2022), Limassol, Cyprus
ICORE CONFERENCE RANKING: C

2022 **FOSS AWARD CO-CHAIR**
International Conference on Mining Software Repositories (MSR 2022), Pittsburgh, Pennsylvania, USA
ICORE CONFERENCE RANKING: A

2022 **INDUSTRIAL TRACK CO-CHAIR**
International Conference on Software Analysis, Evolution, and Reengineering (SANER 2022), Honolulu, Hawaii, USA
ICORE CONFERENCE RANKING: A

2021 **PROGRAM CO-CHAIR**
International Conference on Program Comprehension (ICPC 2021), Madrid, Spain
ICORE CONFERENCE RANKING: A

2021 **SPECIAL ISSUE CHAIR**
International Conference on Open-Source Systems (OSS 2021), Lahti, Finland
ICORE CONFERENCE RANKING: N/A

2021 **ASSOCIATE CHAIR**
ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2021), Virtual
ICORE CONFERENCE RANKING: A

2018 **PUBLICITY CO-CHAIR**
International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Campobasso, Italy
ICORE CONFERENCE RANKING: A

2015 **WEB CHAIR**
International Conference on Program Comprehension (ICPC 2015), Florence, Italy
ICORE CONFERENCE RANKING: A

8.3.2 ORGANIZATIONAL COMMITTEE MEMBER

2026 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Engineering (ICSE), Ottawa, Canada.
ICORE CONFERENCE RANKING: A*

2025 **PROGRAM COMMITTEE MEMBER**
IEEE/ACM International Conference on Automated Software Engineering (ASE), Seoul, South Korea.
ICORE CONFERENCE RANKING: A*

2025 **PROGRAM COMMITTEE MEMBER**
IEEE International Conference on Software Maintenance and Evolution (ICSME), Auckland, New Zealand.
ICORE CONFERENCE RANKING: A

2025 **PROGRAM COMMITTEE MEMBER**
ACM Conference on the Foundations of Software Engineering (ESEC/FSE), Trondheim, Norway.
ICORE CONFERENCE RANKING: A*

2025 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Engineering (ICSE), Ottawa, Canada.
ICORE CONFERENCE RANKING: A*

2025 **PROGRAM COMMITTEE MEMBER**
IEEE International Conference on Software Analysis, Engineering, and Reengineering (SANER 2025), Montreal, Canada.
ICORE CONFERENCE RANKING: A

2025 **PROGRAM COMMITTEE MEMBER**
International Conference on Mining Software Repositories (MSR 2025), Ottawa, Canada.
ICORE CONFERENCE RANKING: A

2025 **PROGRAM COMMITTEE MEMBER**
International Conference on Program Comprehension (ICPC 2025), Ottawa, Canada.
ICORE CONFERENCE RANKING: A

2025 **PROGRAM COMMITTEE MEMBER**
The Genetic and Evolutionary Computation Conference (GECCO), Lisbon, Portugal.
ICORE CONFERENCE RANKING: A

2025 **PROGRAM COMMITTEE MEMBER**
28th European Conference on Artificial Intelligence (ECAI), Bologna, Italy.
ICORE CONFERENCE RANKING: A

2024 **PROGRAM COMMITTEE MEMBER**
ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE), Singapore.
ICORE CONFERENCE RANKING: A*

2024 **PROGRAM COMMITTEE MEMBER**
International Conference on Automated Software Engineering (ASE), Sacramento, USA.
ICORE CONFERENCE RANKING: A*

2024 **PROGRAM COMMITTEE MEMBER**
IEEE International Conference on Software Maintenance and Evolution (ICSME), Flagstaff, Arizona, USA.

ICORE CONFERENCE RANKING: A

2024 **PROGRAM COMMITTEE MEMBER**
27th European Conference on Artificial Intelligence (ECAI), Santiago De Compostela, Spain.
ICORE CONFERENCE RANKING: A

2023 **PROGRAM COMMITTEE MEMBER**
The Genetic and Evolutionary Computation Conference (GECCO), Lisbon, Portugal.
ICORE CONFERENCE RANKING: A

2023 **PROGRAM COMMITTEE MEMBER**
ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE), Singapore.
ICORE CONFERENCE RANKING: A*

2023 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Engineering (ICSE), Melbourne, Australia.
ICORE CONFERENCE RANKING: A*

2021 **PROGRAM COMMITTEE MEMBER**
International Conference on Automated Software Engineering (ASE 2021), Melbourne, Australia
ICORE CONFERENCE RANKING: A*

2021 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Analysis, Evolution, and Reengineering (SANER 2021), Virtual
ICORE CONFERENCE RANKING: A

2020 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Analysis, Evolution, and Reengineering (SANER 2020), London, Canada
ICORE CONFERENCE RANKING: A

2020 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Maintenance and Evolution (ICSME 2020), Adelaide, Australia
ICORE CONFERENCE RANKING: A

2020 **PROGRAM COMMITTEE MEMBER**
International Conference on Automated Software Engineering (ASE 2020), Melbourne, Australia
ICORE CONFERENCE RANKING: A*

2020 **PROGRAM COMMITTEE MEMBER**
International Conference on Mining Software Repositories (MSR 2020), Seoul, South Korea
ICORE CONFERENCE RANKING: A

2020 **PROGRAM COMMITTEE MEMBER**
International Conference on Program Comprehension (ICPC 2020), Seoul, South Korea
ICORE CONFERENCE RANKING: A

2019 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Maintenance and Evolution (ICSME 2019), Cleveland, USA
ICORE CONFERENCE RANKING: A

2019 **PROGRAM COMMITTEE MEMBER**
International Conference on Program Comprehension (ICPC 2019), Montreal, Canada
ICORE CONFERENCE RANKING: A

2019 **PROGRAM COMMITTEE MEMBER**
International Conference on Mining Software Repositories (MSR 2019), Montreal, Canada

ICORE CONFERENCE RANKING: A

2019 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Analysis, Evolution, and Reengineering (SANER 2019), Hangzhou, China
ICORE CONFERENCE RANKING: A

2018 **PROGRAM COMMITTEE MEMBER**
International Conference on Program Comprehension (ICPC 2018), Gothenburg, Sweden
ICORE CONFERENCE RANKING: A

2018 **PROGRAM COMMITTEE MEMBER**
International Conference on Mining Software Repositories (MSR 2018), Gothenburg, Sweden
ICORE CONFERENCE RANKING: A

2018 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Campobasso, Italy
ICORE CONFERENCE RANKING: A

2017 **PROGRAM COMMITTEE MEMBER**
International Conference on Software Maintenance and Evolution (ICSME 2017), Shanghai, China
ICORE CONFERENCE RANKING: A

2017 **PROGRAM COMMITTEE MEMBER**
International Conference on Program Comprehension (ICPC 2016), Buenos Aires, Argentina
ICORE CONFERENCE RANKING: A

2016 **PROGRAM COMMITTEE MEMBER**
Working Conference on Mining Software Repositories – Mining Challenge Track (MSR 2016), Austin, Texas
ICORE CONFERENCE RANKING: A

8.4 JOURNAL SERVICES

2024-current **MEMBER OF THE BOARD OF DISTINGUISHED REVIEWERS – ACM TRANSACTIONS ON SOFTWARE ENGINEERING AND METHODOLOGY (TOSEM) – LINK: HTTPS://DL.ACM.ORG/JOURNAL/TOSEM/DISTINGUISHED-REVIEWERS-BOARD**
SJR RANKING: Q1

2022 - current **ASSOCIATE EDITOR – ELSEVIER'S INFORMATION AND SOFTWARE TECHNOLOGY (IST) – LINK: HTTPS://WWW.SCIENCEDIRECT.COM/JOURNAL/INFORMATION-AND-SOFTWARE-TECHNOLOGY/ABOUT/EDITORIAL-BOARD**
SJR RANKING: Q1

2022 **GUEST EDITOR – ELSEVIER'S JOURNAL OF SYSTEMS AND SOFTWARE (JSS)**
Special Issue on "Software Evolution, Engineering, and Reengineering in Practice"
SJR RANKING: Q1

2021 - current **ASSOCIATE EDITOR – SPRINGER'S JOURNAL OF EMPIRICAL SOFTWARE ENGINEERING (EMSE) – LINK: HTTPS://LINK.SPRINGER.COM/JOURNAL/10664/EDITORIAL-BOARD**
SJR RANKING: Q1

2021 **GUEST EDITOR – SPRINGER'S JOURNAL OF EMPIRICAL SOFTWARE ENGINEERING (EMSE)**
Special Issue on "Program Comprehension" **– LINK:**
https://emsejournal.github.io/special_issues/2021_Program_Comprehension.html
SJR RANKING: Q1

2021 - current **ASSOCIATE EDITOR – E-INFORMATICA SOFTWARE ENGINEERING JOURNAL (E-INFORMATICA) – LINK: HTTPS://WWW.E-INFORMATYKA.PL/INDEX.PHP/EINFORMATICA/EDITORIAL-BOARD/**
SJR RANKING: Q3

2020 - 2023 **Review Board Member – IEEE Transactions on Software Engineering (TSE)**
SJR Ranking: Q1

2020 - 2023 **Associate Editor – Elsevier's Journal of Systems and Software (JSS)**
SJR Ranking: Q1

2019 - current **Editorial Assistant – Elsevier's Science of Computer Programming (SCICO) – Link:** https://www.sciencedirect.com/journal/science-of-computer-programming/about/editorial-board
SJR Ranking: Q3

2019 - 2022 **Social Media Director – ACM Transactions on Software Engineering and Methodology (TOSEM)**
SJR Ranking: Q1

2019 - 2020 **Editorial Board Member – Elsevier's Journal of Systems and Software (JSS)**
SJR Ranking: Q1

2019 **Guest Editor – Elsevier's Journal of Systems and Software (JSS)**
Special Issue on "Machine Learning Techniques for Software Quality Evaluation"
SJR Ranking: Q1

2018 **Guest Editor – Springer's Journal of Empirical Software Engineering (EMSE)**
Special Issue on "Mobile Software Engineering"
SJR Ranking: Q1

2018 **Guest Editor – Wiley's Journal of Software Maintenance and Evolution (JSEP)**
Special Issue on "Machine Learning Techniques for Software Quality Evaluation"
SJR Ranking: Q2

2017 - current **Review Board Member – Springer's Journal of Empirical Software Engineering (EMSE)**
SJR Ranking: Q1

2016 - current **Referee Activities**
Referee for:

- TSE: IEEE Transactions on Software Engineering (100+ reviews);
- TOSEM: ACM Transactions on Software Engineering and Methodology (30+ reviews);
- EMSE: Springer's Empirical Software Engineering (100+ reviews);
- IST: Elsevier's Information and Software Technology (20+ reviews);
- JSS: Elsevier's Journal of Systems and Software (70+ reviews);
- SCICO: Elsevier's Science of Computer Programming Journal (30+ reviews).

8.5 Invited Speaker

2025 F. Palomba.
Mind the Bias: Fairness by Design in AI-Powered Software Engineering Assistants
1st Workshop on Evaluation of Qualitative Aspects of Intelligent Software Assistants, Istanbul, Turkey, June 17th.

2024 F. Palomba.
Technical Debt in the AI Era: A TechDebt's Offer AI Can't Refuse
7th ACM/IEEE International Conference on Technical Debt (TechDebt 2024), Lisbon, Portugal, April 15th.

2024 F. Palomba.
Toward Next-Generation Automated Test Code Quality Analysis
9th Brazilian Symposium on Systematic and Automated Software Testing (SAST 2024), Curitiba, Paraná, Brazil, September 30th.

2022 F. Palomba.

Mining Software Repositories for Vulnerability Prediction: Challenges, Lessons Learned, and Recommendations
International Summer School on Security Testing and Verification, Leuven, Belgium, September 22nd.

2022 F. Palomba.
Technical Debt: The Road Ahead
Polish Conference on Software Engineering, September 15th.

2020 F. Palomba.
Artificial Intelligence, This Unknown.
Virtual Annual Conference on Geospatial Big Data, December 21th.

2020 F. Palomba.
Mutation Testing Meets Software Analytics: A Hands-On Tutorial.
15th International Conference on Mining Software Repositories (MSR 2020) – Education Track, June 30th.

F. Palomba.
2019 Test Code Quality: A New Dimension of Test Code Effectiveness.
10th International Workshop on Empirical Software Engineering in Practice (IWESEP), Tokyo University of Technology, December 13th.

2019 F. Palomba.
Software Design 101: Improving the Design of Existing Code, Tests, and Communities.
14th International Summer School on Software Engineering, University of Salerno, June 17th.

2019 F. Palomba.
Software Design 101: Improving the Design of Existing Code, Tests, and Communities.
2nd International Summer School on Software Engineering, Tampere University of Technology, June 6th.

2018 F. Palomba.
Managing Source Code Quality in Mobile Applications.
4th International Summer School on Software Engineering, Free-University of Bolzano, July 10th.

2018 F. Palomba.
Exploiting Machine Learning Techniques for the Automatic Identification of Code Smells
1st International Summer School on Machine Learning, Eindhoven University of Technology, July 20th

2018 F. Palomba.
Machine Learning for Mobile Applications.
IFI Summer School on Machine Learning, University of Zurich, June 28th.

2017 F. Palomba.
Does Refactoring of Test Smells Induce Fixing Flaky Tests?
CREST Open Workshop organized by the University College of London, November 27th.

F. Palomba.
2017 Not Only Maintainability: Revisiting Test Smells as a Measure of Test Code Effectiveness.
IPA Fall Days on System and Software Analysis organized by the CWI institute, Nunspeet (The Netherlands), November 8th

2016 F. Palomba.
Mining Version Histories for Detecting Code Smells.
CREST Open Workshop organized by the University College of London, November 29th.

2015 F. Palomba.
Using Alternative Sources of Information for Smell Detection.
Delft University of Technology, October 23rd.

2014 F. Palomba
Software Metrics and Antipatterns: Challenges and Solution
University of Molise, November, 12nd.

8.6 GUEST LECTURER

2025 F. Palomba.
Software Engineering with and for Artificial Intelligence
Advanced Ph.D. Course at the Gran Sasso Science Institute, July 1-4

2024 F. Palomba.
Software Engineering with and for Artificial Intelligence
Advanced Ph.D. Course at the Gran Sasso Science Institute, June 24-27

2020 F. Palomba.
On Code and Test Smells
Software Modeling and Analysis Course at the University of Bern, November 4th

2017 F. Palomba.
Code Smells: Relevance of the Problem and Novel Detection Techniques
Software Maintenance and Evolution Course at the University of Zurich, December 8th

2017 F. Palomba.
Mining User Reviews to Support the Evolution of Mobile Applications.
Green Lab at the University of Amsterdam, October 19th

2017 F. Palomba.
Mining User Reviews to Support the Evolution of Mobile Applications.
Mining Software Repositories Course at the Delft University of Technology, September 26th

2016 F. Palomba.
The Back-end Side of Compilers.
Software Engineering Course at the University of Salerno, June 4th

2016 F. Palomba.
Bug Prediction: An Overview.
Software Engineering Course at the University of Salerno, May 27th

2016 F. Palomba.
Code Smell Detection and Refactoring Automation.
Software Engineering Course at the University of Salerno, May 19th

8.7 HIRING COMMITTEES

2024 **HIRING COMMITTEE MEMBER OF A RESEARCH FELLOW AT UNIVERSITY OF SALERNO (ITALY)**
Designed member of the hiring committee for a position of Research Fellow at the University of Salerno (Italy).

2024 **HIRING COMMITTEE MEMBER OF A RESEARCH FELLOW AT UNIVERSITY OF SALERNO (ITALY)**
Designed member of the hiring committee for a position of Research Fellow at the University of Salerno (Italy).

2023 **HIRING COMMITTEE MEMBER OF A RESEARCH FELLOW AT UNIVERSITY OF SALERNO (ITALY)**
Designed member of the hiring committee for a position of Research Fellow at the University of Salerno (Italy).

2023 **HIRING COMMITTEE MEMBER OF A RESEARCH FELLOW AT UNIVERSITY OF SALERNO (ITALY)**

Designed member of the hiring committee for a position of Research Fellow at the University of Salerno (Italy).

2023 **HIRING COMMITTEE MEMBER OF A RESEARCH FELLOW AT UNIVERSITY OF SALERNO (ITALY)**
Designed member of the hiring committee for a position of Research Fellow at the University of Salerno (Italy).

2019 **HIRING COMMITTEE MEMBER OF AN ASSISTANT PROFESSOR ON BIG DATA SCIENCE**
Designed member of the hiring committee for a position of Assistant Professor at the University of Zurich (Switzerland). In this committee, I was designed as the delegate of the Senior Research Associates.

2019 **HIRING COMMITTEE MEMBER OF AN ASSOCIATE PROFESSOR ON ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**
Designed member of the hiring committee for a position of Assistant Professor at the University of Zurich (Switzerland). In this committee, I was designed as the delegate of the Senior Research Associates.

8.8 RESEARCH GRANT COMMITTEES

2023 **REVIEWER FOR THE SWISS SPECIAL CALL JAPAN PROGRAM**
Reviewer of research proposals submitted for collaborative research proposals between Japan and Switzerland.

2023 **REVIEWER FOR THE DUTCH RESEARCH COUNCIL (NWO) GRANTS PROGRAM**
Expert Reviewer of research proposals submitted for funding request to the Dutch Research Council.

2022 **MEMBER OF THE SWISS NATIONAL SCIENCE FOUNDATION (SNSF) GRANTS PROGRAM**
Member of the selection committee of research proposals submitted to the Mathematical, Physical, and Engineering Sciences Division of the SNSF Grants Program, which aimed at promoting Swiss researchers.

2022 **MEMBER OF THE NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA (NSERC) DISCOVERY GRANTS PROGRAM**
Member of the selection committee of research proposals submitted to the Engineering Section of the NSERC Discovery Grants Program, which aimed at promoting the research of young researchers.

2021 **MEMBER OF THE RESEARCH GRANT COMMITTEE OF THE FREE UNIVERSITY OF BOZEN-BOLZANO**
Member of the selection committee of research proposals submitted to the Internal Research Grant Program, which aimed at promoting interdisciplinary research of researchers at the Free University of Bozen-Bolzano.

2021 **MEMBER OF THE NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA (NSERC) DISCOVERY GRANTS PROGRAM**
Member of the selection committee of research proposals submitted to the Engineering Section of the NSERC Discovery Grants Program, which aimed at promoting the research of young researchers.

2019 **MEMBER OF THE ACADEMY OF FINLAND RESEARCH PROGRAM ON "PROGRAMMABLE WORLD AND ADVANCED SOFTWARE TECHNIQUES"**
Member of the selection committee of research proposals submitted to the "Programmable World and Advanced Software Technologies" research program, which aimed at promoting new research directions of senior researchers located in Finland or that were planning to move to Finland.

2019 **MEMBER OF THE CROATIAN SCIENCE FOUNDATION RESEARCH PROGRAM ON "BUSINESS SOFTWARE PROJECTS: CRITICAL FACTORS, MODELLING, AND PERSPECTIVES"**
Member of the selection committee of research proposals submitted to the "Business Software Projects: Critical Factors, Modelling, and Perspectives" research program, which aimed at promoting new research directions of both young and senior researchers located in Croatia.

8.9 PH.D. COMMITTEE JURIES

2025 **MEMBER OF THE PH.D. COMMITTEE OF THE PH.D. IN "COMPUTER SCIENCE" (UNIVERSITY OF BERGEN, NORWAY)**
External Ph.D. Committee Member of the Ph.D. defense of Dr. Ngoc-Thanh Nguyen, entitled: *"Engineering of Software for Automatic Marine Data Quality Control"*. Date: October 20th, 2025.

2025 **MEMBER OF THE PH.D. COMMITTEE OF THE PH.D. IN "COMPUTER SCIENCE" (UNIVERSITY OF PORTO, PORTUGAL)**
External Ph.D. Committee Member of the Ph.D. defense of Dr. Sara Filipa Couto Fernandes, entitled: *"A Live Environment for Continuous Software Inspection and Refactoring"*. Date: May 5th, 2025.

2023 **MEMBER OF THE PH.D. COMMITTEE OF THE PH.D. IN "INFORMATION AND COMMUNICATION TECHNOLOGY" (UNIVERSITY OF L'AQUILA, ITALY)**
External Ph.D. Committee Member of the Ph.D. defenses of Dr. Roberta Capuano, Dr. Gianluca Filippone, and Dr. Claudio Di Sipio. Date: July 26th, 2023.

2023 **MEMBER OF THE PH.D. COMMITTEE OF DR. MICHEL MAES BERMEJO (UNIVERSIDAD REY JUAN CARLOS, SPAIN)**
External Ph.D. Committee member of the dissertation thesis developed by Dr. Michel Maes Bermejo, entitled: *"Hunting Bugs: A Study of the Change History of Open-Source Projects and Its Application to the Detection of How These Changes Introduce Bugs"*. Date: June 30th, 2023.

2023 **MEMBER OF THE PH.D. COMMITTEE OF THE PH.D. IN "TECHNOLOGIES FOR COMPUTER ENGINEERING" (UNIVERSITY OF SANNIO, ITALY)**
External Ph.D. Committee Member of the Ph.D. defenses of Dr. Anna Vacca and Dr. Martina Iammarino. Date: February 1st, 2023.

2022 **INVITED HONORARY MEMBER OF THE PH.D. COMMITTEE OF DR. MOHAMED SOFIEN BOUTAIB (UNIVERSITY OF TUNIS, TUNISIA)**
Honorary member of the dissertation thesis developed by Dr. Mohamed Sofien Boutaib, entitled: *"Search-Based Code Smell Detection in Imbalanced and Uncertain Environments"*. Date: January 12nd, 2022.

2021 - 2025 **MEMBER OF THE ADVISORY COMMITTEE OF DR. SARA FILIPA COUTO FERNANDES (UNIVERSITY OF PORTO, PORTUGAL)**
External assessor and Ph.D. advisory committee member of the dissertation thesis developed by Dr. Sara Filipa Couto Fernandes, entitled: *"A Live Environment for Continuous Software Inspection and Refactoring"*.

2020 **MEMBER OF THE PH.D. JURY OF DR. JONAS DE BLESER (VRJIE UNIVERSITEIT BRUSSEL, BELGIUM)**
External assessor and Ph.D. committee member of the dissertation thesis developed by Dr. Jonas De Bleser, entitled: *"An Automated Delta-Debugging Approach to Resilience Testing of Actor Systems through Fault Injection"*. Date: October 2nd, 2020.

8.10 ACADEMIC SERVICES

2025 - current **COORDINATOR OF THE ERASMUS+ BLENDED INTENSIVE PROGRAM (BIP) ON "DIGITAL HUMANITIES"**
Coordinator of the Erasmus+ Blended Intensive Program (BIP) on "Digital Humanities," responsible for designing and managing a transnational training initiative that combines online collaborative activities with a short-term mobility program. The program brought together students and academic staff from the University of Porto (Portugal), Universitat Politècnica de València (Spain), and the University of Salerno (Italy) to explore the intersection of digital technologies and the humanities, fostering interdisciplinary skills, teamwork, and innovation. The role includes coordinating teaching activities, supervising the development of interdisciplinary prototypes, and managing logistical aspects of the program.

2025 - current **NATIONAL COORDINATOR OF THE FOCUS GROUP ON "SOFTWARE" OF THE CINI WORKING GROUP ON SYSTEM AND SERVICE QUALITY**
National Coordinator of the Focus Group on "Software" of the CINI Working Group, which aims to foster collaboration among academia, industry, and public institutions to advance research, innovation, and technology transfer in the field of software engineering, with a particular focus on emerging challenges such as AI-driven development, cybersecurity, and sustainable software.

2023 - current **MEMBER OF THE PH.D. COMMITTEE OF THE XXXIX CYCLE OF THE PH.D. PROGRAM IN COMPUTER SCIENCE**
Member of the Ph.D. Committee of the XXXIX Cycle of the Ph.D. Program in Computer Science of the University of Salerno.

2023 - current **MEMBER OF THE PH.D. PROGRAM QUALITY ASSURANCE GROUP**
Member of the Quality Assurance Group with the responsibility of monitoring the research activities and career progresses of the Ph.D. Students enrolled to the Ph.D. Program in Computer Science of the University of Salerno.

2022 - current **LOCAL COORDINATOR OF THE CINI WORKING GROUP ON SYSTEM AND SERVICE QUALITY**
Local Coordinator of the CINI Working Group, which aims to foster discussion and collaboration among the Italian research groups working on methodologies and approaches for maintaining and evolving high-quality IT systems and services.

2021 - current **MEMBER OF THE STUDY PLAN COMMITTEE**
Member of the Study Plan Committee with the responsibility of verifying and providing advice on the study plans submitted by Bachelor's and Master's students enrolled to the Computer Science Program of the University of Salerno.

9 CONFERENCES AND SCHOOLS PARTICIPATIONS

2025 **INTERNATIONAL CONFERENCE ON EVALUATION AND ASSESSMENT IN SOFTWARE ENGINEERING (EASE)**
Istanbul, Turkey

2025 **51ST EUROMICRO CONFERENCE SERIES ON SOFTWARE ENGINEERING AND ADVANCED APPLICATIONS (SEAA 2025)**
Salerno, Italy

2024 **INTERNATIONAL CONFERENCE ON EVALUATION AND ASSESSMENT IN SOFTWARE ENGINEERING (EASE)**
Salerno, Italy

2024 **46TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2024)**
Lisbon, Portugal

2024 **31ST IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ANALYSIS, EVOLUTION, AND REENGINEERING (SANER 2024)**
Rovaniemi, Finland

2023 **45TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2023)**
Melbourne, Australia

2023 **49TH EUROMICRO CONFERENCE SERIES ON SOFTWARE ENGINEERING AND ADVANCED APPLICATIONS (SEAA 2023)**
Durres, Albania

2022 **48TH EUROMICRO CONFERENCE SERIES ON SOFTWARE ENGINEERING AND ADVANCED APPLICATIONS (SEAA 2022)**
Gran Canaria, Spain

2021 **36TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE MAINTENANCE AND EVOLUTION (ICSME 2021)**
Virtual

2021 **43RD IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2021)**
Virtual

2020 **35TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE MAINTENANCE AND EVOLUTION (ICSME 2020)**
Virtual

2020 **42ND IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2020)**
Virtual

2019 **41ST IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2019)**
Montreal, Canada

2018 **34TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE MAINTENANCE AND EVOLUTION (ICSME 2018)**
Madrid, Spain
Presentation of [C36].

2018 **40TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2018)**
Gothenburg, Sweden
Presentation of [J7], [J8].

2018 **25TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE ANALYSIS, EVOLUTION, AND REENGINEERING (SANER 2018)**
Campobasso, Italy

2017 **33RD IEEE INTERNATIONAL CONFERENCE ON SOFTWARE MAINTENANCE AND EVOLUTION (ICSME 2017)**
Shanghai, China
Presentation of [C23].

2017 **39TH IEEE/ACM INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2017)**
Buenos Aires, Argentina
Presentation of [C16], [C18].

2017 **25TH IEEE INTERNATIONAL CONFERENCE ON PROGRAM COMPREHENSION (ICPC 2017)**
Buenos Aires, Argentina
Presentation of [C21], [C22].

2016 **49TH CREST OPEN WORKSHOP (COW) ON SOFTWARE ARCHITECTURE AND TECHNICAL DEBT**
London, United Kingdom
Presentation of [J1].

2016 **32ND IEEE INTERNATIONAL CONFERENCE ON SOFTWARE MAINTENANCE AND EVOLUTION (ICSME 2016)**
Raleigh, USA
Presentation of [C13], [C15].

2016 **38TH IEEE/ACM INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2016)**
Austin, USA
Presentation of [C9], [C10].

2015 **1ST INTERNATIONAL SUMMER SCHOOL ON SOFTWARE ENGINEERING (ISSSE)**
Free University of Bozen-Bolzano, Bolzano, Italy
Presentation of [C1].

2015 **37TH IEEE/ACM INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING (ICSE 2015)**
Florence, Italy
Presentation of [C4], [C5] and [C6].

2014 **30TH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE MAINTENANCE AND EVOLUTION (ICSME 2014)**
Victoria, British Columbia, Canada
Presentation of [C3].

2014 **11TH INTERNATIONAL SUMMER SCHOOL ON SOFTWARE ENGINEERING (ISSSE)**
University of Salerno, Fisciano, Italy
Scientific Secretarial of the School

2013 **28TH IEEE/ACM INTERNATIONAL CONFERENCE ON AUTOMATED SOFTWARE ENGINEERING (ASE 2013)**
Palo Alto, USA
Presentation of [C2].

10 AWARDS AND RECOGNITION

My research has been recognized with several prestigious international and national awards for excellence, impact, and scientific rigor. I am included in the **World's Top 2% Scientists ranking compiled by Stanford University in collaboration with Elsevier** (https://topscinet.com), which identifies the top two percent of researchers worldwide based on standardized citation indicators. Notably, I am the recipient of the **2023 IEEE/TCSE Rising Star Award**, the most prestigious early-career recognition in software engineering - the second Italian researcher ever to have received it. I also received the **IEEE Computer Society Italy Section Best PhD Thesis Award (2017)**, being the only software engineer to date honoured with this distinction. My publications have earned multiple **ACM/SIGSOFT and IEEE/TCSE Distinguished Paper Awards, and Best Paper Awards** at flagship conferences, attesting to the soundness and quality of my research contributions. In addition, I was awarded a **Bronze Medal at the ACM/SIGSOFT Student Research Competition**, and I have received over **20 Outstanding or Distinguished Reviewer Awards** from top-tier venues, recognizing my consistent and high-quality service to the research community.

10.1 RESEARCH CAREER AWARDS

2023 **IEEE COMPUTER SOCIETY TECHNICAL COUNCIL ON SOFTWARE ENGINEERING RISING STAR AWARD**
Motivation: *"In recognition of his research on code refactoring and code smells. The use of alternative sources of information, such as historical and textual information, besides the structural information previously used in the literature, has led to significant research advancements in the area"*. https://tc.computer.org/tcse/awards/.

The IEEE Technical Council on Software Engineering is the leading international body within the IEEE Computer Society that coordinates and promotes research, education, and practice in software engineering worldwide. The TCSE Rising Star Award is its most prestigious early-career recognition, conferred annually to only one researcher globally who has demonstrated outstanding leadership and influential contributions to software engineering.

2017 **IEEE COMPUTER SOCIETY BEST PHD THESIS AWARD – ITALY SECTION CHAPTER**
For my PhD Thesis named: "Code Smells: Relevance of the Problem and Novel Detection Techniques". https://site.ieee.org/italy-cs/ieee-computer-society-italy-section-chapter-2017-phd-thesis-award/

The IEEE Computer Society is the world's largest professional organization dedicated to advancing computing and information technology. Its Italy Section Chapter annually recognizes the best doctoral dissertation in computer science and engineering conducted at Italian universities. This highly competitive national award acknowledges exceptional research quality, innovation, and scientific impact. I am the only software engineer to have ever received this distinction within the Italian Section.

10.2 DISTINGUISHED/BEST PAPER AWARDS

2025 **MOST INFLUENTIAL 5-YEARS JOURNAL FIRST PAPER ON SOFTWARE TESTING FOR THE PAPER "HOW DEVELOPERS ENGAGE WITH STATIC ANALYSIS TOOLS IN DIFFERENT CONTEXTS"**
18th IEEE International Conference on Software Testing, Verification and Validation (ICST 2025), Naples, Italy.
ICORE CONFERENCE RANKING: A

2025 **BEST PAPER AWARD FOR THE PAPER "INVESTIGATING THE PERFORMANCE OF SMALL LANGUAGE MODELS IN DETECTING TEST SMELLS IN MANUAL TEST CASES"**
39th Brazilian Symposium on Software Engineering (SBES 2025), Recife, Brazil.
ICORE CONFERENCE RANKING: N/A

2025 **BEST PAPER AWARD FOR THE PAPER "CONTEXTUAL FAIRNESS-AWARE PRACTICES IN ML: A COST-EFFECTIVE EMPIRICAL EVALUATION"**
1st International Workshop on Fairness in Software Systems (Fairness 2025), Montreal, Canada.
ICORE CONFERENCE RANKING: N/A

2023 **BEST PAPER AWARD FOR THE PAPER "THE YIN AND YANG OF SOFTWARE QUALITY: ON THE RELATIONSHIP BETWEEN DESIGN PATTERNS AND CODE SMELLS"**
49th Euromicro Conference Series on Software Engineering and Advanced Applications (SEAA), Durres, Albania.

ICORE CONFERENCE RANKING: B

2022 **BEST PAPER AWARD FOR THE PAPER ""THERE AND BACK AGAIN?": ON THE INFLUENCE OF SOFTWARE COMMUNITY DISPERSION OVER PRODUCTIVITY"**
48th Euromicro Conference Series on Software Engineering and Advanced Applications (SEAA), Gran Canaria, Spain.
ICORE CONFERENCE RANKING: B

2022 **IEEE/TCSE DISTINGUISHED PAPER AWARD FOR THE PAPER "TOWARD UNDERSTANDING THE IMPACT OF REFACTORING ON PROGRAM COMPREHENSION"**
29th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER), Honolulu, Hawaii, USA.
ICORE CONFERENCE RANKING: A

2018 **PAPER HONOURABLE MENTION FOR THE PAPER "INFORMATION NEEDS IN CONTEMPORARY CODE REVIEW"**
21th ACM International Conference on Computer Supported Cooperative Work (CSCW), New York, USA.
ICORE CONFERENCE RANKING: A

2018 **BEST TOOL DEMO AWARD FOR THE PAPER "BECLOMA: AUGMENTING STACK TRACES WITH USER REVIEW INFORMATION"**
33rd IEEE International Conference on Software Maintenance and Evolution (ICSME), Shanghai, China.
ICORE CONFERENCE RANKING: A

2015 **ACM/SIGSOFT DISTINGUISHED PAPER AWARD FOR THE PAPER "WHEN AND WHY YOUR CODE STARTS TO SMELL BAD"**
37th ACM/IEEE International Conference of Software Engineering (ICSE), Firenze, Italy.
ICORE CONFERENCE RANKING: A*

2015 **BRONZE MEDAL AT THE STUDENT RESEARCH COMPETITION FOR THE PAPER "TEXTUAL ANALYSIS FOR CODE SMELL DETECTION"**
37th ACM/IEEE International Conference of Software Engineering (ICSE), Firenze, Italy.
ICORE CONFERENCE RANKING: A*

2013 **ACM/SIGSOFT DISTINGUISHED PAPER AWARD FOR THE PAPER "DETECTING BAD SMELLS IN SOURCE CODE USING CHANGE HISTORY INFORMATION"**
28th ACM/IEEE International Conference on Automated Software Engineering (ASE), Palo Alto, USA.
ICORE CONFERENCE RANKING: A*

10.3 DISTINGUISHED/OUTSTANDING REVIEWER AWARDS

2025 **DISTINGUISHED REVIEWER AWARD**
41st International Conference on Software Maintenance and Evolution (ICSME 2025), Auckland, New Zealand.
ICORE CONFERENCE RANKING: A

2025 **DISTINGUISHED REVIEWER AWARD**
25th IEEE International Conference on Source Code Analysis and Manipulation (SCAM 2025), Auckland, New Zealand.
ICORE CONFERENCE RANKING: C

2025 **DISTINGUISHED REVIEWER AWARD**
35th International Conference on the Foundations of Software Engineering (FSE 2025), Trondheim, Norway.
ICORE CONFERENCE RANKING: A*

2025 **DISTINGUISHED REVIEWER AWARD**
22nd International Conference on Mining Software Repositories (MSR 2025), Ottawa, Canada.
ICORE CONFERENCE RANKING: A

2025 **DISTINGUISHED REVIEWER AWARD**
2nd ACM International Conference on AI Foundation Models and Software Engineering (FORGE 2025), Ottawa, Canada.
ICORE CONFERENCE RANKING: N/A

2024 **DISTINGUISHED REVIEWER AWARD**
40th ACM International Conference on Software Maintenance and Evolution, Flagstaff, Arizona, USA.
ICORE CONFERENCE RANKING: A

2024 **DISTINGUISHED REVIEWER AWARD**
1st ACM International Conference on AI-Powered Software (AIware), Porto de Galinhas, Brazil.
ICORE CONFERENCE RANKING: N/A

2023 **DISTINGUISHED REVIEWER AWARD**
IEEE Transactions on Software Engineering (TSE).
SJR RANKING: Q1

2021 **DISTINGUISHED PROGRAM COMMITTEE MEMBER AWARD**
36th IEEE/ACM International Conference on Automated Software Engineering (ASE).
ICORE CONFERENCE RANKING: A*

2021 **DISTINGUISHED REVIEWER AWARD**
21st IEEE International Conference on Source Code Analysis and Manipulation (SCAM).
ICORE CONFERENCE RANKING: C

2020 **OUTSTANDING REVIEWER AWARD**
Elsevier's Information and Software Technology Journal (IST).
SJR RANKING: Q1

2020 **OUTSTANDING REVIEWER AWARD**
e-Informatica Software Engineering Journal (EISEJ).
SJR RANKING: N/A

2020 **OUTSTANDING REVIEWER AWARD**
Elsevier's Journal of Systems and Software (JSS).
SJR RANKING: Q1

2019 **DISTINGUISHED REVIEWER AWARD**
27th IEEE/ACM International Conference on Program Comprehension (ICPC).
ICORE CONFERENCE RANKING: A

2019 **OUTSTANDING REVIEWER AWARD**
Elsevier's Journal of Systems and Software (JSS).
SJR RANKING: Q1

2018 **DISTINGUISHED REVIEWER AWARD**
Springer's Journal of Empirical Software Engineering (EMSE).
SJR RANKING: Q1

2018 **OUTSTANDING REVIEWER AWARD**
Elsevier's Journal of Systems and Software (JSS).
SJR RANKING: Q1

2018 **OUTSTANDING REVIEWER AWARD**
Elsevier's Information and Software Technology Journal (IST).
SJR RANKING: Q1

2017 **DISTINGUISHED REVIEWER AWARD**
Springer's Journal of Empirical Software Engineering (EMSE).
SJR RANKING: Q1

2016 **OUTSTANDING REVIEWER AWARD**
Elsevier's Information and Software Technology Journal (IST)**.**
SJR RANKING: Q1

11 GRANTS

2024 **FAIR (FUTURE ARTIFICIAL INTELLIGENCE) PROJECT – AMOUNT: 150.000 EUR**
The grant has the awarded under the national call of the project "Future Artificial Intelligence (FAIR)' – Spoke 3 'Resilient AI'", financed within the Piano Nazionale di Ripresa e Resilienza (PNRR), Mission 4 "Istruzione e Ricerca" - Component 2". The project, titled *"Artificial Intelligence-Augmented Code Quality and Security Optimization in Machine Learning-Driven Software"*, aims at developing innovative AI-based techniques to enhance code quality and security in ML-intensive systems.

2023 **PRIN (PROGETTO DI RILEVANTE INTERESSE NAZIONALE) PROJECT– AMOUNT: 239.660 EUR**
The grant has the awarded by the Ministry of University (MUR) and represents one of the most prestigious research grants for researchers in Italy. The project aims at devising novel methods and techniques for engineering fairness and ethics in the context of Artificial Intelligence-based software systems. The role played in this project is the one of *National Coordinator* of the project. The project is in collaboration with the University of L'Aquila (Prof. Davide Di Ruscio) and the University of Sannio (Dr. Andrea Di Sorbo).

2023 **PRIN (PROGETTO DI RILEVANTE INTERESSE NAZIONALE) PROJECT– AMOUNT: 249.609 EUR**
The grant has the awarded by the Ministry of University (MUR) and represents one of the most prestigious research grants for researchers in Italy. The project aims at devising novel methods and techniques for the quality and evolution of Artificial Intelligence-based software systems. The role played in this project is the one of *Local Scientific Coordinator* of the research unit of the University of Salerno. The project is in collaboration with the University of Bari (Prof. Nicole Novielli) and the University of Molise (Prof. Rocco Oliveto). Prof. Nicole Novielli from the University of Bari is the National Coordinator of the project.

2019 **SNSF AMBIZIONE– AMOUNT: 894.430 CHF**
The grant has the awarded by the Swiss National Science Foundation and represents one of the most prestigious individual research grants for young researchers in Europe. The project aims at devising novel instruments and techniques to improve automatic software testing.

2019 **HASLER RESEARCH GRANT – AMOUNT: 50.000 CHF**
The grant has the main goal to study the feasibility of new test code quality metrics based on a combination of factors deemed important by developers.

2018 **FORSCHUNGSCREDIT POSTDOC GRANT – AMOUNT: 60.000 CHF**
The grant has the main goal to study how test code quality can be exploited to improve test code effectiveness, with the aim of producing novel techniques and tools to help developers in designing effective test cases.

2017 **4TU.NIRICT.2017 – AMOUNT: 70.000 €**
The grant has the main goal to reinforce the collaboration among the four technical Universities in Netherlands. The proposal is related to the relationship between social and technical aspects of source code, and mainly concerned with the understanding of the impact of social debt on the introduction of code smells and fault.

12 LIST OF PAPERS

I have authored over **200 publications** indexed in SCOPUS and DBLP, including **76 papers in Q1 journals** and **61 papers in A/A*-ranked conferences**. My journal portfolio comprises **12 papers in IEEE Transactions on Software Engineering** (TSE), **3 papers in ACM Transactions on Software Engineering and Methodology** (TOSEM), and **20 papers in Empirical Software Engineering** (EMSE), among other Q1 venues such as Information and Software Technology (IST) and Journal of Systems and Software (JSS). My conference record includes **16 papers at the IEEE/ACM International Conference on Software Engineering** (ICSE), **2 at ACM**

Foundations of Software Engineering (FSE), **4 at IEEE/ACM Automated Software Engineering** (ASE), **10 at IEEE International Conference on Software Maintenance and Evolution** (ICSME), **9 at IEEE International Conference on Software Analysis, Evolution, and Reengineering** (SANER), **4 at IEEE/ACM International Conference on Mining Software Repositories** (MSR), and **10 at IEEE/ACM International Conference on Program Comprehension** (ICPC), across their various tracks. All of which are recognized as A or A* venues.

The author order reflects the contribution of each co-author. In publications where I am listed as **last author**, I served as the **senior researcher and supervisor**, guiding the conceptual and methodological development of the work.

For the sake of readability, the following section reports **my publications in Q1 journals and A/A*-ranked conferences** (all tracks). The complete publication list is available at: https://dblp.org/pid/116/6732.html.

12.1 International Journals

[J76] A. Cannavale, G. Voria, A. Scognamiglio, G. Giordano, G. Catolino, **F. Palomba**.
Fairness Set and Forgotten: Mining Fairness Toolkit Usage in Open-Source Machine Learning Projects.
Elsevier's Information and Software Technology (IST), to appear, 2025.

[J75] T. Hinrichs, E. Iannone, T. Aladics, P. Hegedus, A. De Lucia, **F. Palomba**, R. Scandariato.
Back to the Roots: Assessing Mining Techniques for Java Vulnerability-Contributing Commits.
ACM Transactions on Software Engineering and Methodology (TOSEM), to appear, 2025.

[J74] D. Di Dario, **F. Palomba**, C. Gravino.
Another Brick in the Wall: A Systematic Mapping Study Toward Defining Metaverse Engineering Through Socio-Technical Issues.
ACM Computing Surveys (CSUR), Vol. 37, 2025.

[J73] A. Parziale, G. Voria, G. Giordano, G. Catolino, G. Robles, **F. Palomba**.
Fairness on a Budget, Across the Board: A Cost-Effective Evaluation of Fairness-Aware Practices Across Contexts, Tasks, and Sensitive Attributes.
Elsevier's Information and Software Technology (IST), Vol. 188, 107858, 2025.

[J72] G. Voria, F. Casillo, C. Gravino, G. Catolino, **F. Palomba**.
RECOVER: Toward Requirements Generation from Stakeholders' Conversations.
IEEE Transactions on Software Engineering (TSE), Vol. 51, Issue 6, pp. 1912-1933, 2025.

[J71] G. Recupito, G. Giordano, F. Ferrucci, D. Di Nucci, **F. Palomba**.
When Code Smells Meet ML: On the Lifecycle of ML-specific Code Smells in ML-enabled Systems.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 30, n. 139, 2025.

[J70] V. De Martino, G. Recupito, G. Giordano, F. Ferrucci, D. Di Nucci, **F. Palomba**.
Into the ML-Universe: An Improved Classification and Characterization of Machine-Learning Projects.
Elsevier's Journal of Systems and Software (JSS), Vol. 230, n. 112471, 2025.

[J69] P. Khokhar, C. Gravino, **F. Palomba**.
Advances in Artificial Intelligence for Diabetes Prediction: Insights from a Systematic Literature Review.
Elsevier's Artificial Intelligence in Medicine (AIIM), Vol. 164, 103132, 2025.

[J68] V. De Martino, G. Voria, C. Troiano, G. Catolino, **F. Palomba**.
Examining the Impact of Bias Mitigation Algorithms on the Sustainability of ML-enabled Systems: A Benchmark Study.
Elsevier's Journal of Systems and Software (JSS), Vol. 230, 112458, 2025.

[J67] G. De Vito, **F. Palomba**, F. Ferrucci.
The Role of Large Language Models in Addressing IoT Challenges: A Systematic Literature Review.
Future Generation Computer Systems (FGCS), Vol. 171, 107829, 2025.

[J66] G. De Vito, S. Di Martino, F. Ferrucci, C. Gravino, **F. Palomba**.
LLM-Based Automation of Cosmic Functional Size Measurement From Use Cases.
IEEE Transactions on Software Engineering (TSE), Vol. 51, Issue 5, pp. 1500-1523, 2025.

[J65] S. Lambiase, G. Catolino, **F. Palomba**, F. Ferrucci, D. Russo.
Investigating the role of cultural values in adopting large language models for software engineering.
ACM Transactions on Software Engineering and Methodology (TOSEM), to appear, 2025.

[J64] G. Voria, G. Sellitto, C. Ferrara, F. Abate, A. De Lucia, F. Ferrucci, G. Catolino, **F. Palomba**.
Fairness-aware practices from developers' perspective: A survey.
Elsevier's Information and Software Technology (IST), Vol. 182, 107710, 2025.

[J63] V. Pontillo, L. Martins, I. Machado, **F. Palomba**, F. Ferrucci.
An empirical investigation into the capabilities of anomaly detection approaches for test smell detection.
Elsevier's Journal of Systems and Software (JSS), vol. 222, 112320, 2025.

[J62] V. De Martino, **F. Palomba**.
Classification and challenges of non-functional requirements in ML-enabled systems: A systematic literature review.
Elsevier's Information and Software Technology (IST), Vol. 181, 107678, 2025.

[J61] G. Annunziata, S. Lambiase, D. Tamburri, W. J. Van den Heuven, **F. Palomba**, G. Catolino, F. Ferrucci, A. De Lucia.
Uncovering Community Smells in Machine Learning-Enabled Systems: Causes, Effects, and Mitigation Strategies.
ACM Transactions on Software Engineering and Methodology, Vol. 34, Issue 6, n. 176, pp. 1-48, 2025.

[J60] L. Martins, V. Pontillo, H. Costa, F. Ferrucci, **F. Palomba**, I. Machado.
Test code refactoring unveiled: where and how does it affect test code quality and effectiveness?
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 30(1), 1-39, 2025.

[J59] S. Lambiase, G. Catolino, **F. Palomba**, F. Ferrucci.
Motivations, Challenges, Best Practices, and Benefits for Bots and Conversational Agents in Software Engineering: A Multivocal Literature Review.
ACM Computing Surveys (CSUR), vol. 57, n. 4, pp. 1-37.

[J58] M. De Stefano, F. Pecorelli, D. Di Nucci, **F. Palomba**, A. De Lucia.
The Quantum Frontiers of Software Engineering: A Systematic Mapping Study.
Elsevier's Information and Software Technology (IST), vol. 175, 107525.

[J57] 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.
Elsevier's Journal of Systems and Software (JSS), vol. 216, 112151, 2024.

[J56] V. Pentangelo, D. Di Dario, S. Lambiase, F. Ferrucci, C. Gravino, **F. Palomba**.
SENEM: A Software Engineering-Enabled Educational Metaverse.
Elsevier's Information and Software Technology (IST), Vol. 174, 107512, 2024.

[J55] E. Iannone, G. Sellitto, E. Iaccarino, F. Ferrucci, A. De Lucia, **F. Palomba**.
Early and Realistic Exploitability Prediction of Just-Disclosed Software Vulnerabilities: How Reliable Can It Be?
ACM Transactions on Software Engineering and Methodology (TOSEM), vol. 33, issue 6, pp. 1-41, 2024.

[J54] M. De Stefano, D. Di Nucci, **F. Palomba**, A. De Lucia.
An Empirical Study Into the Effects of Transpilation on Quantum Circuit Smells.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 29.3, 61, 2024.

[J53] F. Pecorelli, G. Grano, **F. Palomba**, H. Gall, A. De Lucia.
Toward Granular Search-Based Automatic Unit Test Generation.
Springer's Journal of Empirical Software Engineering (EMSE), vol.29, n. 71, 2024.

[J52] V. Pontillo, **F. Palomba**, F. Ferrucci.
Test Code Flakiness in Mobile Apps: The Developer's Perspective.
Elsevier's Information and Software Technology (IST), Vol. 168, 107394, 2024.

[J51] V. Pontillo, D. Amoroso D'Aragona, F. Pecorelli, D. Di Nucci, F. Ferrucci, **F. Palomba**.
Machine Learning-Based Test Smell Detection.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 29.2, 1:44, 2024.

[J50] G. Giordano, G. Festa, G. Catolino, **F. Palomba**, F. Ferrucci, C. Gravino.
On the Adoption and Effects of Source Code Reuse on Defect Proneness and Maintenance Effort.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 29, 1:20, 2024.

[J49] S. Lambiase, G. Catolino, F. Pecorelli, D. Tamburri, **F. Palomba**, W.J. van den Heuvel, F. Ferrucci.
An Empirical Investigation Into the Influence of Software Communities' Cultural and Geographical Dispersion on Productivity.
Elsevier's Journal of Systems and Software (JSS), Vol. 208, 111878, 2024.

[J48] C. Ferrara, G. Sellitto, F. Ferrucci, **F. Palomba**, A. De Lucia.
Fairness-Aware Machine Learning Engineering: How Far Are We?
Springer's Journal of Empirical Software Engineering (EMSE), vol. 29, n. 9, 2024.

[J47] M. Zakeri-Nasrabadi, S. Parsa, E. Esmaili, **F. Palomba**.
A Systematic Literature Review on Code Smells Datasets and Validation Mechanisms.
ACM Computing Surveys (CSUR), vol. 55, issue 13, n. 298, pp. 1-48, 2023.

[J46] X. Li, S. Moreschini, Z. Zhang, **F. Palomba**, D. Taibi.
The Anatomy of a Vulnerability Database: A Systematic Mapping Study.
Elsevier's Journal of Systems and Software (JSS), Vol. 201, 111679, 2023.

[J45] 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.
Springer's Journal of Empirical Software Engineering (EMSE), vol. 28, n. 89, 2023.

[J44] V. Lenarduzzi, F. Pecorelli, N. Saarimaki, S. Lujan, **F. Palomba**.
A Critical Comparison on Six Static Analysis Tools: Detection, Agreement, and Precision.
Elsevier's Journal of Systems and Software (JSS), Vol. 128, 111575, 2022.

[J43] V. Pontillo, **F. Palomba**, F. Ferrucci.
Static Test Flakiness Prediction: How Far Can We Go?
Springer's Journal of Empirical Software Engineering (EMSE), vol. 27, n. 187, 2022.

[J42] G. Giordano, **F. Palomba**, F. Ferrucci.
On the Use of Artificial Intelligence to Deal with Privacy in IoT Systems: A Systematic Literature Review.
Elsevier's Journal of Systems and Software (JSS), vol. 193, 111475, 2022.

[J41] N. Borovits, I. Kumara, D. Di Nucci, P. Krishnan, S. Dalla Palma, **F. Palomba**, D. Tamburri, W.J. van den Heuvel.
FindICI: Using Machine Learning to Detect Linguistic Inconsistencies between Code and Natural Language Descriptions in Infrastructure-as-Code.
Springer's Journal of Empirical Software Engineering (EMSE), vol. 27, n. 178, 2022.

[J40] M. Di Gregorio, D. Di Nucci, **F. Palomba**, G. Vitiello.
The Making of Accessible Android Applications: An Empirical Study on the State of the Practice.
Springer's Journal of Empirical Software Engineering (EMSE), vol. 27, n. 145, 2022.

[J39] M. De Stefano, F. Pecorelli, D. Di Nucci, **F. Palomba**, A. De Lucia.
Software Engineering for Quantum Programming: How Far Are We?

Elsevier's Journal of Systems and Software (JSS), Vol. 190, pp. 111326, 2022.

[J38] S. Boutaib, M. Elarbi, S. Bechikh, **F. Palomba**, L. Ben Said.
Handling Uncertainty in SBSE: A Possibilistic Evolutionary Approach for Code Smells Detection.
Springer's Journal of Empirical Software Engineering (EMSE), vol. 27, n. 124, 2022.

[J37] F. Lomio, E. Iannone, A. De Lucia, **F. Palomba**, V. Lenarduzzi.
Just-in-Time Software Vulnerability Prediction: Are We There Yet?
Elsevier's Journal of Systems and Software (JSS), Vol. 188, pp. 111283, 2022.

[J36] F. Pecorelli, S. Lujan, V. Lenarduzzi, **F. Palomba**, A. De Lucia.
On the Adequacy of Static Analysis Warnings with respect to Code Smell Prediction.
Springer's Journal of Empirical Software Engineering (EMSE), vol. 27, n. 64, 2022.

[J35] E. Iannone, R. Guadagni, F. Ferrucci, A. De Lucia, **F. Palomba**.
The Secret Life of Software Vulnerabilities: A Large-Scale Empirical Study.
IEEE Transactions on Software Engineering (TSE), vol. 49, issue 1, pp. 44-63, 2022.

[J34] F. Pecorelli, G. Catolino, F. Ferrucci, A. De Lucia, **F. Palomba**.
Software Testing and Android Applications: A Large-Scale Empirical Study.
Springer's Journal of Empirical Software Engineering (EMSE), vol. 27, n. 31, 2021.

[J33] I. Saidani, A. Ouni, M. Mkaouer, **F. Palomba**.
On the Impact of Continuous Integration on Refactoring Practice: An Exploratory Study on TravisTorrent.
Elsevier's Information and Software Technology (IST), vol. 138, 106618, 2021.

[J32] I. Kumara, M. Garriga, A. Romeu, D. Di Nucci, **F. Palomba**, D. Tamburri, W. J. van den Heuvel.
The Do's and Don'ts of Infrastructure Code: A Systematic Grey Literature Review.
Elsevier's Information and Software Technology (IST), vol. 137, 106593, 2021.

[J31] F. Dalla Palma, D. Di Nucci, **F. Palomba**, D. Tamburri.
Within-Project Defect Prediction of Infrastructure-as-Code using Product and Process Metrics.
IEEE Transactions on Software Engineering (TSE), vol. 48, issue 6, pp. 2086 - 2104, 2021.

[J30] F. Pecorelli, **F. Palomba**, A. De Lucia.
The Relation of Test-Related Factors to Software Quality: A Case Study on Apache Systems.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 26, Issue 18, pp. 1-42, 2021.

[J29] D. A. Tamburri, **F. Palomba**, R. Kazman.
Success and Failure in Software Engineering: A Followup Systematic Literature Review.
IEEE Transactions on Engineering Management (TEM), Vol. 68, N. 2, pp. 599-611, 2021.

[J28] G. Grano, **F. Palomba**, H. Gall.
Lightweight Assessment of Test Case Effectiveness using Source Code Quality Indicators.
IEEE Transactions on Software Engineering (TSE), Vol. 47, issue 4, pp. 758 - 774, 2021.

[J27] D. A. Tamburri, **F. Palomba**, R. Kazman.
Exploring Community Smells in Open-Source: An Automated Approach.
IEEE Transactions on Software Engineering (TSE), Vol. 47, N. 3, pp. 630-652, 2021.

[J26] **F. Palomba**, D. A. Tamburri, A. Serebrenik, A. Zaidman, R. Oliveto, F. Arcelli Fontana.
Beyond Technical Aspects: How Do Community Smells Influence the Maintainability of Code Smells?
IEEE Transactions on Software Engineering (TSE), Vol. 47, N. 1, pp. 108-129, 2021.

[J25] **F. Palomba**, D. Tamburri.
Predicting the Emergence of Community Smells using Socio-Technical Metrics: A Machine Learning Approach.
Elsevier's Journal of Systems and Software (JSS), Vol. 171, pp. 110847, 2020.

[J24] S. Boutaib, S. Bechikha, **F. Palomba**, M. Elarbia, L.B. Saida.
Code Smell Detection and Identification in Imbalanced Environments.
Elsevier's Expert Systems with Applications (ESWA), Vol. 166, pp. 114076, 2020.

[J23] S. Dalla Palma, D. Di Nucci, **F. Palomba**, D. Tamburri.
Towards a Catalogue of Software Quality Metrics for Infrastructure Code.
Elsevier's Journal of Systems and Software (JSS), Vol. 170, pp. 110726, 2020.

[J22] L. Pascarella, **F. Palomba**, A. Bacchelli.
On the Performance of Method-Level Defect Prediction: A Negative Result.
Elsevier's Journal of Systems and Software (JSS), Vol. 161, pp. 110493, 2020.

[J21] G. Grano, **F. Palomba**, D. Di Nucci, A. De Lucia, H. Gall.
Scented since the Beginning: On the Diffuseness of Test Smells in Automatically Generated Test Code.
Elsevier's Journal of Systems and Software (JSS), Vol. 156, pp. 312-327, 2019.

[J20] C. Vassallo, S. Panichella, **F. Palomba**, S. Proksch, H. Gall, A. Zaidman.
How Developers Engage with Static Analysis Tools in Different Contexts.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 25, Issue 2, pp. 1419-1457, 2019.

[J19] P. Salza, **F. Palomba**, D. Di Nucci, A. De Lucia, F. Ferrucci.
Third-Party Libraries in Mobile Apps: When, How, and Why Developers Update Them.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 25, Issue 3, pp. 2341-2377, 2019.

[J18] G. Catolino, **F. Palomba**, F. Arcelli Fontana, A. Zaidman, A. De Lucia, F. Ferrucci.
Improving Change Prediction Models with Code Smell-Related Information.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 25, Issue 1, pp. 49-95, 2019.

[J17] G. Catolino, **F. Palomba**, A. Zaidman, F. Ferrucci.
Not All Bugs are the Same: Understanding, Characterizing, and Classifying the Root Cause of Bugs.
Elsevier's Journal of Systems and Software (JSS), Vol. 152, pp. 165-181, 2019.

[J16] M. Ilyas Azeem, **F. Palomba**, L. Shi, Q. Wang.
Machine Learning Techniques for Code Smell Detection: A Systematic Literature Review and Meta-Analysis.
Elsevier's Information and Software Technology (IST), Vol. 108, pp. 115-138, 2019.

[J15] L. Pascarella, **F. Palomba**, A. Bacchelli.
Fine-Grained Just-In-Time Defect Prediction.
Elsevier's Journal of Systems and Software (JSS), Vol. 150, pp. 22-36, 2019.

[J14] E. Fregnan, T. Baum, **F. Palomba**, A. Bacchelli.
A Survey on Software Coupling Relations and Tools.
Elsevier's Information and Software Technology (IST), Vol. 107, pp. 159-178, 2019.

[J13] D. A. Tamburri, **F. Palomba**, A. Zaidman, A. Serebrenik.
Discovering Community Types in Open Source: A Systematic Approach and Its Evaluation.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 24, pp. 1369-1417, 2019.

[J12] **F. Palomba**, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia.
On the Impact of Code Smells on the Energy Consumption of Mobile Apps
Elsevier's Information and Software Technology (IST), Vol. 105, pp. 43-55, 2019.

[J11] **F. Palomba**, M. Zanoni, F. Arcelli Fontana, A. De Lucia, R. Oliveto.
Toward a Smell-aware Bug Prediction Model
IEEE Transactions on Software Engineering (TSE), Vol. 45, N. 2, pp. 194-218, 2018.

[J10] **F. Palomba**, G. Bavota, R. Oliveto, F. Fasano, M. Di Penta, A. De Lucia.
A Large-scale Empirical Study on the Lifecyle of Code Smell Co-Occurrences
Elsevier's Information and Software Technology (IST), Vol. 99, pp. 1-10, 2018.

[J9] G. Catolino, **F. Palomba**, A. De Lucia, F. Ferrucci, A. Zaidman.
Enhancing Change Prediction Models using Developer-Related Factors.
Elsevier's Journal of Systems and Software (JSS), Vol. 143, pp. 14-28, 2018.

[J8] **F. Palomba**, M. Linares Vasquez, G. Bavota, R. Oliveto, M. Di Penta, D. Poshyvanyk, A. De Lucia.
Crowdsourcing User Reviews to Support The Evolution of Mobile Apps.
Elsevier's Journal of Systems and Software (JSS), Vol. 137, pp. 143-162, 2018.

[J7] **F. Palomba**, A. Panichella, A. Zaidman, R. Oliveto, A. De Lucia.
The Scent of a Smell: An Extensive Comparison Between Structural and Textual Code Smells
IEEE Transactions on Software Engineering (TSE), Vol. 44, N. 10, pp. 977-1000, 2018.

[J6] **F. Palomba**, G. Bavota, R. Oliveto, F. Fasano, M. Di Penta, A. De Lucia.
On The Diffuseness and the Impact on Maintainability of Code Smells: A Large Scale Empirical Investigation.
Springer's Journal of Empirical Software Engineering (EMSE), Vol. 23, N. 3, pp. 1188-1221, 2018.

[J5] D. Di Nucci, **F. Palomba**, G. De Rosa, G. Bavota, R. Oliveto, A. De Lucia.
A Developer Centered Bug Prediction Model.
IEEE Transactions on Software Engineering (TSE), Vol. 44, N. 1, pp. 5-24, 2018.

[J4] D. Di Nucci, **F. Palomba**, R. Oliveto, A. De Lucia.
Dynamic Selection of Classifiers to Use in Bug Prediction: An Adaptive Model.
IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI), Vol. 1, N. 3, pp. 202-212, 2017.

[J3] M. Tufano, **F. Palomba**, G. Bavota, R. Oliveto, M. Di Penta, A. De Lucia, D. Poshyvanyk.
When and Why Your Code Starts to Smell Bad (and Whether the Smells go Away).
IEEE Transactions on Software Engineering (TSE), Vol. 43, N. 11, pp. 1063-1088, 2017.

[J2] G. Bavota, A. De Lucia, M. Di Penta, R. Oliveto, **F. Palomba**.
An Experimental Investigation on the Innate Relationship between Quality and Refactoring.
Elsevier's Journal of Systems and Software (JSS), Vol. 107, pp. 1-14, 2015.

[J1] **F. Palomba**, G. Bavota, M. Di Penta, R. Oliveto, D. Poshyvanyk, A. De Lucia.
Mining Version Histories for Detecting Code Smells.
IEEE Transactions on Software Engineering (TSE), Vol. 41, N. 5, pp. 462-489, 2015.

12.2 INTERNATIONAL CONFERENCES

[C61] G. Soares, V. Santos, M. Ribeiro, L. Martins, V. Pontillo, M. Aranda, R. Gheyi, I. Machado, **F. Palomba**.
On the Harmfulness of Test Smells in Manual System Testing: A Controlled Experiment.
In Proceedings of the ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM), Honolulu, Hawai, USA, to appear.

[C60] A. Della Porta, S. Lambiase, **F. Palomba**.
Do Prompt Patterns Affect Code Quality? A First Empirical Assessment of ChatGPT-Generated Code.
In Proceedings of the International Conference on Evaluation and Assessment in Software Engineering (EASE 2025), Istanbul, Turkey, to appear.

[C59] G. Annunziata, S. Lambiase, **F. Palomba**, G. Catolino, F. Ferrucci.
How Do Communities of ML-Enabled Systems Smell? A Cross-Sectional Study on the Prevalence of Community Smells.
In Proceedings of the International Conference on Evaluation and Assessment in Software Engineering (EASE 2025),

Istanbul, Turkey, to appear.

[C58] L. Baresi, A. De Lucia, A. Di Marco, M. Di Penta, D. Di Ruscio, L. Mariani, D. Micucci, **F. Palomba**, M. T. Rossi, F. Zampetti
Students' Perception of ChatGPT in Software Engineering: Lessons Learned from Five Courses.
In Proceedings of the IEEE Conference on Software Engineering Education and Training (CSEE&T), Ottawa, Canada, 2025, pp. 158-169, 2024.

[C57] V. De Martino, S. Martinez-Fernandez, **F. Palomba**.
Do developers adopt green architectural tactics for ml-enabled systems? a mining software repository study.
In Proceedings of the 47th IEEE/ACM International Conference on Software Engineering (ICSE 2025), Ottawa, Canada, 2025, pp. 135-139, 2024.

[C56] G. Voria, S. Lambiase, M. C. Schiavone, G. Catolino, **F. Palomba**.
From Expectation to Habit: Why Do Software Practitioners Adopt Fairness Toolkits?
In Proceedings of the 47th IEEE/ACM International Conference on Software Engineering (ICSE 2025), Ottawa, Canada, 2025, pp. 94-105, 2024.

[C55] C. Ferrara, F. Casillo, C. Gravino, A. De Lucia, **F. Palomba**.
ReFAIR: Toward a Context-Aware Recommender for Fairness Requirements Engineering.
In Proceedings of the 46th International Conference on Software Engineering (ICSE 2024), Lisbon, Portugal, pp. 1-12, 2024.

[C54] G. Annunziata, S. Lambiase, **F. Palomba**, F. Ferrucci.
SERGE – Serious Game for the Education of Risk Management in Software Project Management.
In Proceedings of the 46th International Conference on Software Engineering (ICSE 2024), Lisbon, Portugal, pp. 264-273, 2024.

[C53] S. Lambiase, G. Catolino, B. Della Piana, F. Ferrucci, **F. Palomba**.
Dealing With Cultural Dispersion: A Novel Theoretical Framework for Software Engineering Research and Practice.
In Proceedings of the 46th International Conference on Software Engineering (ICSE 2024), Lisbon, Portugal, pp. 74-84, 2024.

[C52] G. Voria, V. Pentangelo, A. Della Porta, S. Lambiase, G. Catolino, **F. Palomba**, F. Ferrucci
Community Smell Detection and Refactoring in Slack: The CADOCS Project.
In Proceedings of the 38th IEEE International Conference on Software Maintenance and Evolution (ICSME), Limassol, Cyprus, pp. 469-473, 2022.

[C51] S. Lambiase, G. Catolino, D. Tamburri, A. Serebrenik, **F. Palomba**, F. Ferrucci.
Good Fences Make Good Neighbors? On the Impact of Cultural and Geographical Dispersion on Community Smells.
In Proceedings of the 44th International Conference on Software Engineering (ICSE 2022), Pittsburgh, USA, pp. 67-78, 2022.

[C50] G. Sellitto, E. Iannone, Z. Codabux, V. Lenarduzzi, A. De Lucia, **F. Palomba**, F. Ferrucci.
Toward Understanding the Impact of Refactoring on Program Comprehension.
In Proceedings of the 29th International Conference on Software Analysis, Engineering, and Reengineering (SANER 2022), Honolulu, Hawaii, USA, pp. 731-742, 2022 - **IEEE/TCSE Distinguished Paper Award.**

[C49] G. Giordano, A. Fasulo, G. Catolino, **F. Palomba**, F. Ferrucci, C. Gravino.
On the Evolution of Inheritance and Delegation Mechanisms and Their Impact on Code Quality.
In Proceedings of the 29th International Conference on Software Analysis, Engineering, and Reengineering (SANER 2022), in press, Honolulu, Hawaii, USA, 2022.

[C48] C. Sarmento, T. Massoni, A. Serebrenik, G. Catolino, D. Tamburri, **F. Palomba**.
Gender Diversity and Community Smells: A Double-Replication Study on Brazilian Software Teams.
In Proceedings of the 29th International Conference on Software Analysis, Engineering, and Reengineering (SANER 2022), Honolulu, Hawaii, USA, pp. 947-958, 2022.

[C47] G. Catolino, **F. Palomba**, D. Tamburri, A. Serebrenik.
Understanding Community Smells Variability: A Statistical Approach.
In Proceedings of the 43rd International Conference on Software Engineering (ICSE 2021), Madrid, Spain, pp. 77-86, 2021.

[C46] A. Peruma, K. Almalki, C. Newman, M. Mkaouer, A. Ouni, **F. Palomba**.
TSDetect: An Open-Source Test Smells Detection Tool.
In Proceedings of the 28th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2020), pp. 1650-1654, Sacramento, USA, 2020.

[C45] G. Grano, C. De Iaco, **F. Palomba**, H. Gall.
Pizza Versus Pinza: On the Perception and Measurability of Unit Test Code Quality.
In Proceedings of the 36th International Conference on Software Maintenance and Evolution (ICSME 2020), pp. 336-347, Adelaide, Australia, 2020.

[C44] M. Di Gregorio, D. Di Nucci, **F. Palomba**, G. Vitiello.
The Making of Accessible Android Applications: An Empirical Study on the State of the Practice.
In Proceedings of the 36th International Conference on Software Maintenance and Evolution (ICSME 2020), pp. 857-861, Adelaide, Australia, 2020.

[C43] S. Lambiase, A. Cupito, F. Pecorelli, A. De Lucia, **F. Palomba**.
Just-in-Time Test Smell Detection and Refactoring: The DARTS Project.
In Proceedings of the 28th International Conference on Program Comprehension (ICPC 2020), pp. 441-445, Seoul, South Korea, 2020.

[C42] E. Iannone, F. Pecorelli, D. Di Nucci, **F. Palomba**, A. De Lucia.
Refactoring Android-Specific Energy Smells: A Plug-In for Android Studio.
In Proceedings of the 28th International Conference on Program Comprehension (ICPC 2020), pp. 451-455, Seoul, South Korea, 2020.

[C41] V. Lenarduzzi, **F. Palomba**, D. Taibi, D. Tamburri.
Open-SZZ: A Free, Open-Source, Web-Accessible Implication of the SZZ Algorithm.
In Proceedings of the 28th International Conference on Program Comprehension (ICPC 2020), pp. 446-450, Seoul, South Korea, 2020.

[C40] F. Pecorelli, **F. Palomba**, F. Khohm, A. De Lucia.
Developer-Driven Code Smell Prioritization.
In Proceedings of the 17th International Conference on Mining Software Repositories (MSR 2020), Seoul, South Korea, pp. 220-231, 2020.

[C39] F. Pecorelli, G. Catolino, F. Ferrucci, A. De Lucia, **F. Palomba**.
Testing of Mobile Applications in the Wild: A Large-Scale Empirical Study on Android Apps.
In Proceedings of the 28th International Conference on Program Comprehension (ICPC 2020), pp. 296-307, Seoul, South Korea, 2020.

[C38] G. Catolino, **F. Palomba**, D. A. Tamburri, A. Serebrenik, F. Ferrucci.
Refactoring Community Smells in the Wild: The Practitioner's Field Manual.
In Proceedings of the 42nd International Conference on Software Engineering (ICSE 2020), Vol. 2, pp. 25-34, Seoul, South Korea, 2020.

[C37] L. Di Geronimo, L. Braz, E. Fregnan, **F. Palomba**, A. Bacchelli.
UI Dark Patterns and Where to Find Them: A Study on Mobile Applications and User Perception.
In Proceedings of the 38th ACM CHI Conference on Human Factors in Computing Systems (CHI), pp. 1-14, Honolulu, USA, 2020.

[C36] M. Eck, **F. Palomba**, M. Castelluccio, A. Bacchelli.

Understanding Flaky Tests: The Developer's Perspective.
In Proceedings of the 27th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE), pp. 830-840, Tallinn, Estonia, 2019.

[C35] D. Serra, G. Grano, **F. Palomba**, F. Ferrucci, H. Gall, A. Bacchelli.
On the Effectiveness of Manual and Automatic Unit Test Generation: Ten Years Later.
In Proceedings of the 16th International Conference on Mining Software Repositories (MSR 2019), pp. 121-125, Montreal, Canada, 2019.

[C34] F. Pecorelli, **F. Palomba**, D. Di Nucci, A. De Lucia.
Comparing Machine Learning and Heuristic Approaches for Metric-Based Code Smell Detection.
In Proceedings of the 27th International Conference on Program Comprehension (ICPC 2019), pp. 93-104, Montreal, Canada, 2019.

[C33] G. Catolino, **F. Palomba**, D. A. Tamburri, A. Serebrenik, F. Ferrucci.
Gender Diversity and Women in Software Teams: How do They Affect Community Smells?
In Proceedings of the 41st International Conference on Software Engineering (ICSE 2019), Vol. 2, pp. 11-20, Montreal, Canada, 2019.

[C32] D. Spadini, **F. Palomba**, T. Baum, S. Hanenberg, M. Bruntink, A. Bacchelli.
Test-Driven Code Review: An Empirical Study.
In Proceedings of the 41st International Conference on Software Engineering (ICSE 2019), Vol. 1, pp. 1061-1072, Montreal, Canada, 2019.

[C31] L. Pascarella, D. Spadini, **F. Palomba**, M. Bruntink, A. Bacchelli.
Information Needs in Contemporary Code Review.
In Proceedings of the 21st International Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2018), Vol. 1, pp. 202-213, New York, USA, 2018 – **Best Paper Honorable Mention.**

[C30] V. Kovakenko, **F. Palomba**, A. Bacchelli.
Mining File Histories: Should We Consider Branches?
In Proceedings of the 33th International Conference on Automated Software Engineering (ASE 2018), Vol. 1, pp. 202-213, Montpellier, France, 2018.

[C29] C. Vassallo, **F. Palomba**, A. Bacchelli, H. Gall.
Continuous Code Quality: Are We (Really) Doing That?
In Proceedings of the 33th International Conference on Automated Software Engineering (ASE 2018), Vol. 1, pp. 790-795, Montpellier, France, 2018.

[C28] C. Vassallo, **F. Palomba**, H. Gall.
Continuous Refactoring in CI: A Preliminary Study on the Perceived Advantages and Barriers.
In Proceedings of the 34th International Conference on Software Maintenance and Evolution (ICSME 2018), Vol. 1, pp. 564-568, Madrid, Spain, 2018.

[C27] **F. Palomba**, A. Zaidman, A. De Lucia.
Automatic Test Smell Detection using Information Retrieval Techniques.
In Proceedings of the 34th International Conference on Software Maintenance and Evolution (ICSME 2018), Vol. 1, pp. 311-322, Madrid, Spain, 2018.

[C26] D. Spadini, **F. Palomba**, A. Zaidman, M. Bruntink, A. Bacchelli.
On the Relation of Test Smells to Software Code Quality.
In Proceedings of the 34th International Conference on Software Maintenance and Evolution (ICSME 2018), Vol. 1, pp. 1-12, Madrid, Spain, 2018.

[C25] P. Salza, **F. Palomba**, D. Di Nucci, C. D'Uva, A. De Lucia, F. Ferrucci.
Do Developers Update Third-Party Libraries in Mobile Apps?
In Proceedings of the 26th International Conference on Program Comprehension (ICPC 2018), Vol. 1, pp. 255-265,

Gothenburg, Sweden, 2018.

[C24] L. Pascarella, **F. Palomba**, M. Di Penta, A. Bacchelli.
How is Video Game Development Different from Software Development in Open Sources?
In Proceedings of the 15th International Conference on Mining Software Repositories (MSR 2018), Vol. 1, pp. 392-402, Gothenburg, Sweden, 2018.

[C23] D. Di Nucci, **F. Palomba**, D. A. Tamburri, A. Serebrenik, A. De Lucia.
Detecting Code Smells using Machine Learning Techniques: Are We There Yet?
In Proceedings of the RENE Track of the 25th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Vol. 1, pp. 612-621, Campobasso, Italy, 2018.

[C22] L. Pascarella, **F. Palomba**, A. Bacchelli.
Re-evaluating Method-level Bug Prediction
In Proceedings of the RENE Track of the 25th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Vol. 1, pp. 592-601, Campobasso, Italy, 2018.

[C21] C. Vassallo, S. Panichella, **F. Palomba**, S. Proksch, A. Zaidman, H. Gall.
Context is King: The Developers' Perspective on the Usage of Statis Analysis Tools
In Proceedings of the 25th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Vol. 1, pp. 38-49, Campobasso, Italy, 2018.

[C20] G. Grano, A. Ciurumelea, S. Panichella, **F. Palomba**, H. Gall.
Exploring the Integration of User Feedback in Automated Testing of Android Applications
In Proceedings of the 25th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Vol. 1, pp. 72-83, Campobasso, Italy, 2018.

[C19] G. Catolino, **F. Palomba**, A. De Lucia, F. Ferrucci, A. Zaidman.
Developer-Related Factors in Change Prediction: An Empirical Assessment
In Proceedings of the 25st International Conference on Program Comprehension (ICPC 2017), Vol. 1, pp. 186-195, Buenos Aires, Argentina, 2017.

[C18] **F. Palomba**, A. Zaidman, R. Oliveto, A. De Lucia.
An Exploratory Study on the Relationship between Changes and Refactoring
In Proceedings of the 25st International Conference on Program Comprehension (ICPC 2017), Vol. 1, pp. 176-185, Buenos Aires, Argentina, 2017.

[C17] **F. Palomba**, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia.
Lightweight Detection of Android-specific Code Smells: The aDoctor Project
In Proceedings of the 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017), Vol. 1, pp. 487-491, Klagenfurt, Austria, 2017.

[C16] D. Di Nucci, **F. Palomba**, A. Panichella, A. Zaidman, A. De Lucia.
PETrA: A Software-based Tool for Estimating the Energy Consumption of Android Applications.
In Proceedings of the 39th IEEE International Conference on Software Engineering (ICSE 2017), Vol. 2, pp. 3-6, Buenos Aires, Argentina, 2017.

[C15] D. Di Nucci, **F. Palomba**, A. Panichella, A. Zaidman, A. De Lucia.
Software-based Energy Profiling of Android Apps: Simple, Efficient and Reliable?
In Proceedings of the 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017), Vol. 1, pp. 103-114, Klagenfurt, Austria, 2017.

[C14] **F. Palomba**, P. Salza, A. Ciurumelea, S. Panichella, H. Gall, F. Ferrucci, A. De Lucia.
Recommending and Localizing Code Changes for Mobile Apps based on User Reviews.
In proceedings of the 39th IEEE International Conference on Software Engineering (ICSE 2017), Vol. 1, pp. 106-117, Buenos Aires, Argentina, 2017.

[C13] M. Tufano, **F. Palomba**, G. Bavota, M. Di Penta, R. Oliveto, A. De Lucia, D. Poshyvanyk.
An Empirical Investigation Into the Nature of Test Smells.
In Proceedings of the 31th IEEE/ACM International Conference on Automated Software Engineering (ASE 2016), Vol. 1, pp. 4-15, Singapore, Singapore, 2016.

[C12] **F. Palomba**, M. Zanoni, F. Arcelli Fontana, A. De Lucia, R. Oliveto.
Smells like Teen Spirit: Improving Bug Prediction Performance using the Intensity of Code Smells.
In Proceedings of the 32nd IEEE International Conference on Software Maintenance and Evolution (ICSME 2016), Vol. 1, pp. 244-255, Raleigh, USA, 2016.

[C11] **F. Palomba**, A. Panichella, A. Zaidman, R. Oliveto, A. De Lucia.
Automatic Test Case Generation: What If Test Code Quality Matters?
In Proceedings of the ACM International Symposium on Software Testing and Analysis (ISSTA 2016), Vol. 1, pp. 130-141, Saarbrucken, Germany, 2016.

[C10] **F. Palomba**, A. Panichella, A. De Lucia, R. Oliveto, A. Zaidman.
A Textual-based Technique for Smell Detection.
In Proceedings of the 24th ACM/IEEE International Conference on Program Comprehension (ICPC 2016), Vol. 1, pp. 1-10, Austin, USA, 2016.

[C9] **F. Palomba**, M. Linares Vasquez, G. Bavota, R. Oliveto, M. Di Penta, D. Poshyvanyk, A. De Lucia.
User Reviews Matter! Tracking Crowdsourced Reviews to Support Evolution of Successful Apps.
In Proceedings of the 31st IEEE International Conference on Software Maintenance and Evolution (ICSME 2015), Vol. 1, pp. 291-300, Bremen, Germany, 2015.

[C8] D. Di Nucci, **F. Palomba**, S. Siravo, G. Bavota, R. Oliveto, A. De Lucia.
On the Role of Developer's Scattered Changes in Bug Prediction.
In Proceedings of the 31st IEEE International Conference on Software Maintenance and Evolution (ICSME 2015), Vol. 1, pp. 241-250, Bremen, Germany, 2015.

[C7] **F. Palomba**, D. Di Nucci, M. Tufano, G. Bavota, R. Oliveto, D. Poshyvanyk, A. De Lucia.
Landfill: an Open Dataset of Code Smells with Public Evaluation.
In Proceedings of the 12th IEEE/ACM Working Conference on Mining Software Repositories (MSR 2015), Vol 2., pp. 482-485, Florence, Italy, 2015.

[C6] **F. Palomba**, M. Tufano, G. Bavota, R. Oliveto, A. Marcus, D. Poshyvanyk, A. De Lucia.
Extract Package Refactoring in ARIES.
In Proceedings of the 37th IEEE/ACM International Conference on Software Engineering (ICSE 2015) – IEEE Press.
Formal Tool Demo Track, Vol. 2, pp. , 669-672, Florence, Italy, 2015.
F. Palomba.

[C5] Textual Analysis for Code Smell Detection.
In Proceedings of the 37th IEEE/ACM International Conference on Software Engineering (ICSE 2015) – Student Research Competition (SRC) Track, Vol. 2., pp. 769-771, Florence, Italy, 2015. - **ACM/SIGSOFT Student Research Competition Award – Bronze Medal.**

[C4] M. Tufano, **F. Palomba**, G. Bavota, R. Oliveto, M. Di Penta, A. De Lucia, D. Poshyvanyk.
When and Why Your Code Starts to Smell Bad.
In Proceedings of the 37th IEEE/ACM International Conference on Software Engineering (ICSE 2015), Vol. 1, pp. 403-414, Florence, Italy, 2015. - **ACM/SIGSOFT Distinguished Paper Award**

[C3] **F. Palomba**, G. Bavota, M. Di Penta, R. Oliveto, A. De Lucia.
Do They Really Smell Bad? A Study on Developers' Perception of Bad Code Smells.
In Proceedings of the 30th IEEE International Conference on Software Maintenance and Evolution (ICSME 2014), Vol. 1, pp. 101-110, Victoria, Canada, 2014.

[C2] **F. Palomba**, G. Bavota, M. Di Penta, R.Oliveto, A. De Lucia, D. Poshyvanyk.

Detecting Bad Smells in Source Code Using Change History Information.
In Proceedings of the 28th IEEE/ACM International Conference on Automated Software Engineering (ASE 2013), Vol. 1, pp. 268-278, Palo Alto, California, 2013. - **ACM/SIGSOFT Distinguished Paper Award**

[C1] G. Bavota, A. De Lucia, A. Marcus, R. Oliveto, **F. Palomba**.
Supporting Extract Class Refactoring in Eclipse: The ARIES Project.
In Proceedings of the 34th International Conference on Software Engineering (ICSE 2012), Vol. 2, pp. 1419-1422, Zurich, Switzerland, 2012.

Fisciano, 03/11/2025