Fabio Palomba, Ph.D.

Curriculum Vitae – 3rd April, 2021

1 Personal Information

Name: Fabio Palomba
Date of Birth: 3th 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

2019 - current **Assistant Professor**
Department of Computer Science - University of Salerno, Italy

2018 - 2019 **Senior Research Associate**
Zurich Empirical Software Engineering Team - University of Zurich, Switzerland

2017 **Post-Doc Researcher**
Delft University of Technology (The Netherlands) and Eindhoven University of Technology (The Netherlands)

3 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

4 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

5 RESEARCH

My research activity is in the area of Software Engineering and, in particular, 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;
- Mining Software Repositories;
- Empirical Software Engineering.
- In these research topics I have published around 100 papers in international journals and conferences indexed in DBLP, SCOPUS (number of citations = 2,389; h-index = 28), and Google Scholar (number of citations = 3,886; h-index = 35). My overall m-index (that is, the h-index normalized by the number of years of activity) is 4 and 5 considering SCOPUS and Google Scholar, respectively. I have been the recipient of **two ACM/SIGSOFT Distinguished Paper Awards**, **one IEEE/TCSE Distinguished Paper Award**, **one Best Paper Award Honorable Mention**, **one Best Tool Demo Award**, and **one bronze medal at the ACM/SIGSOFT Student Research Competition**. Furthermore, **my PhD Thesis has been the recipient of the 2017 IEEE Computer Society Best Thesis Award**. In addition, I have been the recipient of **nine Outstanding/Distinguished Reviewer Awards** for my review activities.

In the following, I describe the research topics of interest with reference to the published or submitted results.

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 [C2, C5, C11, C19, J1]; (ii) study the reason behind their introduction and removal [C4, J4, J8]; (iv) study the impact of code smells on non functional attributes of source code [C3, C20, J7, J10, J11], and (v) recommend their removal via appropriate refactoring operations [C1, C6, C21, J2].

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 [C12] 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 [C23] and the maintainability of test cases [C10, C14].

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. 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 [C8, C13, C25. J5], and on the other hand is able to use appropriate machine learning techniques to distinguish those components affected by bug [J6].

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, they 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 [C9, C16, C28, C29, J9].

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. Indeed, as envisioned by the National Knowledge and Innovation Agenda ICT 2016 – 2019 in the Netherlands, *"software and system complexity is not solely of technological nature but also defined by people and processes"*. In the 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 [Grant-1]. Key research topics in this area regard the understanding of the interplay between social and technical debt [C27], 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 [J13].

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". Thus, traceability links help software engineers to understand the relationships and dependencies among various software artifacts (requirements, code, tests, models, 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 [C9, C16, C29, J9].

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 [C2, C4, C5, C10, C11, C13, C14, C17, C20, C21, C22, J1-J14], to support predictions about software development [J5, J6, J10, J10], and to exploit this knowledge in planning future development [C9 , C16, J7].

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 [J1], in collecting data from these experiments [J3], and in devising laws and theories from this data [C4, C14, J4]. 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 TEACHING

6.1 LECTURER

2020 - 2021 **SOFTWARE DEPENDABILITY**
Lecturer at the Master's Degree of Computer Science at the University of Salerno.

2020 - 2021 **FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE**
Lecturer at the Bachelor's Degree of Computer Science at the University of Salerno.

2019 – 2020 **SOFTWARE DEPENDABILITY**
Lecturer at the Master's Degree of Computer Science at the University of Salerno.

2018 – 2019 **SOFTWARE DEPENDABILITY**
Lecturer at the Master's Degree of Computer Science at the University of Salerno.

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

2018 - 2019 **ADVANCED SOFTWARE ENGINEERING**
Lecturer at the Bachelor's Degree of Computer Science at the University of Zurich.

2017 - 2018 **SOFTWARE ENGINEERING METHODS**
Co-Lecturer at the Bachelor's Degree of Computer Science at the Delft University of Technology.

6.2 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.

6.3 THESES ADVISING/CO-ADVISING

2020 **CATCH ME IF YOU CAN: TOWARD AUTOMATIC EXPLOIT OF KNOWN VULNERABILITIES**
Student: Emanuele Iannone.
Master Thesis – University of Salerno, Italy.

2020 **UNDERSTANDING ARCHITECTURAL SMELLS: A NOVEL TOOL AND A FAMILY OF EMPIRICAL STUDIES**
Student: Manuel De Stefano. Advisor: Prof. Andrea De Lucia.
Master Thesis – University of Salerno, Italy.

2019 **CLASSIFYING SOURCE CODE QUALITY IMPROVEMENT OPPORTUNITIES IN CONTINUOUS INTEGRATION**
Student: Jonas Klass. Advisor: Prof. Alberto Bacchelli.
Master Thesis – University of Zurich, Switzerland.

2019 **LAMBDIFIED JAVA APIS: THE DEVELOPER'S PERSPECTIVE**
Student: Fernando Petrulio. Advisor: Prof. Alberto Bacchelli.
Master Thesis – Joint project between University of Zurich, Switzerland, and University of Salerno, Italy.

2019 **THE SECRET LIFE OF SOFTWARE VULNERABILITIES: AN EMPIRICAL STUDY**
Student: Roberta Guadagni. Advisor: Prof. Alberto Bacchelli.
Master Thesis – Joint project between University of Zurich, Switzerland, and University of Salerno, Italy.

2019 **ON THE EFFECTIVENESS OF MANUAL AND AUTOMATIC UNIT TEST GENERATION: TEN YEARS LATER**
Student: Domenico Serra.
Master Thesis – Joint project between University of Zurich, Switzerland, and University of Salerno, Italy.

2018 **CLASSIFYING THE ROOT CAUSE OF FLAKY TESTS**
Student: Moritz Eck. Advisor: Prof. Alberto Bacchelli
Master Thesis – University of Zurich, Switzerland

2017 **DETECTING CODE SMELLS IN MOBILE APPLICATIONS**
Students: Dustin Lim. Advisor: Prof. Andy Zaidman
Master Thesis – Delft University of Technology, The Netherlands

2017 **A FRAMEWORK FOR THE UI TESTING OF ANDROID AND IOS APPLICATIONS**
Students: René Vennik and Wim de With.
Bachelor End Project – Delft University of Technology, The Netherlands

2016 **A LARGE SCALE EMPIRICAL STUDY ON THE PERFORMANCES OF WITHIN- AND CROSS-PROJECT BUG PREDICTION MODELS**
Student: Salvatore Geremia. Advisor: Prof. Andrea De Lucia
Master Thesis – University of Salerno, Italy

2016 **A TOOL FOR MINING PERFORMANCE INDICATORS OF JAVA APPLICATIONS**
Student: Elisa D'Eugenio. Advisor: Prof. Andrea De Lucia
Master Thesis – University of Salerno, Italy

2016 **DESIGN AND IMPLEMENTATION OF A TOOL FOR EXPERIMENTING CROSS-PROJECT BUG PREDICTION MODELS**
Student: Pasquale Martiniello. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

2016 **USING RANKING ALGORITHMS IN MINING USER REVIEWS: CHALLENGES AND OPPORTUNITIES**

Student: Michele Lotierzo. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

2016 **DESIGN AND IMPLEMENTATION OF A TOOL FOR DETECTING TEXTUAL CODE SMELLS IN SOURCE CODE**
Student: Elena Sollai. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

2016 **DESIGN AND IMPLEMENTATION OF A TOOL FOR RUNNING BUG PREDICTION EXPERIMENTATIONS**
Student: Fabiano Pecorelli. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

2015 **MINING ENERGETIC CODE SMELLS IN ANDROID APPS**
Student: Antonio Prota. Advisor: Prof. Andrea De Lucia
Master Thesis – University of Salerno, Italy

2015 **REFACTORING OF CODE SMELLS: AN EMPIRICAL STUDY**
Student: Fabio Soggia. Advisor: Prof. Andrea De Lucia
Master Thesis – University of Salerno, Italy

2015 **AN ECLIPSE PLUG-IN FOR SUPPORTING CODE SMELL IDENTIFICATION VIA HISTORICAL INFORMATION: THE HIST PROJECT**
Student: Alessandro Longo. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

2014 **ON THE ROLE OF DEVELOPERS' SCATTERING METRICS IN BUG PREDICTION**
Student: Dario Di Nucci. Advisor: Prof. Andrea De Lucia
Master Thesis – University of Salerno, Italy

2014 **DESIGN AND IMPLEMENTATION OF AN ECLIPSE PLUG-IN FOR EXTRACTING ISSUES FROM THE BUGZILLA REPOSITORY**
Student: Davide De Chiara. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

2014 **DESIGN AND IMPLEMENTATION OF AN ECLIPSE PLUG-IN FOR MINING GITHUB**
Student: Santolo Tubelli. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

2014 **DESIGN AND IMPLEMENTATION OF AN ECLIPSE PLUG-IN FOR EXTRACTING QUALITY METRICS FROM SOURCE CODE**
Student: Gianmarco Del Pozzo. Advisor: Prof. Andrea De Lucia
Bachelor Thesis – University of Salerno, Italy

7 PROFESSIONAL ACTIVITIES

7.1 ORGANIZATION COMMITTEE PARTICIPATION

2021 **PROGRAM CO-CHAIR**
29th International Conference on Program Comprehension (ICPC 2021), Madrid, Spain

2021 **SPECIAL ISSUE CHAIR**
17th International Conference on Open-Source Systems (OSS 2021), Lahti, Finland

2021 **ASSOCIATE CHAIR**
24th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2021), Virtual

2021 **PROGRAM COMMITTEE MEMBER**
36th International Conference on Automated Software Engineering (ASE 2021), Melbourne, Australia

2021 **PROGRAM COMMITTEE MEMBER**
28th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2021), Virtual

2020 **PROGRAM COMMITTEE MEMBER**
27th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2020), London, Canada

2020 **PROGRAM COMMITTEE MEMBER**
36th International Conference on Software Maintenance and Evolution (ICSME 2020), Adelaide, Australia

2020 **PROGRAM COMMITTEE MEMBER**
35th International Conference on Automated Software Engineering (ASE 2020), Melbourne, Australia

2020 **PROGRAM COMMITTEE MEMBER**
16th International Conference on Mining Software Repositories (MSR 2020), Seoul, South Korea

2020 **PROGRAM COMMITTEE MEMBER**
28th International Conference on Program Comprehension (ICPC 2020), Seoul, South Korea

2019 **CO-ORGANIZER**
3rd International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2019), Tallinn, Estonia

2019 **PROGRAM COMMITTEE MEMBER**
35th International Conference on Software Maintenance and Evolution (ICSME 2019), Cleveland, USA

2019 **PROGRAM COMMITTEE MEMBER**
27th International Conference on Program Comprehension (ICPC 2019), Montreal, Canada

2019 **PROGRAM COMMITTEE MEMBER**
15th International Conference on Mining Software Repositories (MSR 2019), Montreal, Canada

2019 **PROGRAM COMMITTEE MEMBER**
6th International Conference on Mobile Software Engineering and Systems (MobileSoft 2019), Montreal, Canada

2019 **PROGRAM COMMITTEE MEMBER**
26th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2019), Hangzhou, China

2018 **CO-ORGANIZER**
2nd Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2018), Campobasso, Italy

2018 **PROGRAM COMMITTEE MEMBER**
26th International Conference on Program Comprehension (ICPC 2018), Gothenburg, Sweden

2018 **PROGRAM COMMITTEE MEMBER**
15th International Conference on Mining Software Repositories (MSR 2018), Gothenburg, Sweden

2018 **PROGRAM COMMITTEE MEMBER**
25th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Campobasso, Italy

2018 **PUBLICITY CO-CHAIR**
25th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Campobasso, Italy

2017 **PROGRAM COMMITTEE MEMBER**

33rd International Conference on Software Maintenance and Evolution (ICSME 2017), Shanghai, China

2017 **PROGRAM COMMITTEE MEMBER**
1st International Workshop on Technical Debt Analytics (TDA 2016), Hamilton, New Zealand

2017 **PROGRAM COMMITTEE MEMBER**
25st International Conference on Program Comprehension (ICPC 2016), Buenos Aires, Argentina

2017 **PROGRAM COMMITTEE MEMBER**
12nd International Conference on Software Engineering and Advances (ICSEA 2017), Vienna, Austria

2016 **PROGRAM COMMITTEE MEMBER**
1st International Workshop on Machine Learning Techniques in Software Quality Evaluation, Wroclaw, Polish

2016 **SCIENTIFIC SECRETARIAT**
12nd International Summer School on Software Engineering (ISSSE), University of Salerno

2016 **STUDENT VOLUNTEER**
38th International Conference on Software Engineering (ICSE 2016), Austin, USA

2015 **PROGRAM COMMITTEE MEMBER**
11st International Conference on Software Engineering and Advances (ICSEA 2016), Rome, Italy

2015 **PROGRAM COMMITTEE MEMBER**
13th Working Conference on Mining Software Repositories – Mining Challenge Track (MSR 2016), Austin, Texas

2015 **PROGRAM COMMITTEE MEMBER**
10th International Conference on Software Engineering and Advances (ICSEA 2015), Barcelona, Spain

2014 **WEB CHAIR**
23rd International Conference on Program Comprehension (ICPC 2015), Florence, Italy

2014 **STUDENT VOLUNTEER**
37th International Conference on Software Engineering (ICSE 2015), Florence, Italy

2014 **SCIENTIFIC SECRETARIAT**
11th International Summer School on Software Engineering (ISSSE), University of Salerno

7.2 JOURNAL SERVICES

2021 **GUEST EDITOR – SPRINGER'S JOURNAL OF EMPIRICAL SOFTWARE ENGINEERING**
Special Issue on "Program Comprehension"

2020 - current **REVIEW BOARD MEMBER – IEEE TRANSACTIONS ON SOFTWARE ENGINEERING**

2020 - current **ASSOCIATE EDITOR – ELSEVIER'S JOURNAL OF SYSTEMS AND SOFTWARE**

2019 - current **EDITORIAL ASSISTANT – ELSEVIER'S SCIENCE OF COMPUTER PROGRAMMING**

2019 - current **SOCIAL MEDIA DIRECTOR – ACM TRANSACTIONS ON SOFTWARE ENGINEERING AND METHODOLOGY**

2019 - **EDITORIAL BOARD MEMBER – ELSEVIER'S JOURNAL OF SYSTEMS AND SOFTWARE**

2020

2019 **GUEST EDITOR – ELSEVIER'S JOURNAL OF SYSTEMS AND SOFTWARE**
Special Issue on "Machine Learning Techniques for Software Quality Evaluation"

2018 **GUEST EDITOR – SPRINGER'S JOURNAL OF EMPIRICAL SOFTWARE ENGINEERING**
Special Issue on "Mobile Software Engineering"

2018 **GUEST EDITOR – WILEY'S JOURNAL OF SOFTWARE MAINTENANCE AND EVOLUTION**
Special Issue on "Machine Learning Techniques for Software Quality Evaluation"

2017 - current **REVIEW BOARD MEMBER – SPRINGER'S JOURNAL OF EMPIRICAL SOFTWARE ENGINEERING**

2016 - current **REFEREE ACTIVITIES**
Referee for:

- TSE: IEEE Transactions on Software Engineering
- TOSEM: ACM Transactions on Software Engineering and Methodology
- TR: IEEE Transactions on Software Reliability
- EMSE: Springer's Empirical Software Engineering
- IST: Elsevier's Information and Software Technology
- JSS: Elsevier's Journal of Systems and Software
- JSME: Wiley's Journal of Software Maintenance and Evolution: Research and Practice

7.3 INVITED SPEAKER

2020 F. Palomba.
Artificial Intelligence, This Unknown.
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.

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.

2017 F. Palomba.
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.

5.4 GUEST LECTURER

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 CONFERENCES AND SCHOOLS PARTICIPATIONS

8.1 CONFERENCES

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].

9 RESEARCH INTERNSHIPS

2021 **VISITING PROFESSOR AT THE JHERONIMUS ACADEMY OF DATA SCIENCE, S'HERTOGENBOSCH, THE NETHERLAND**
2 Months as Visitor Professor at the Jheronimus Academy of Data & Engineering (JADE) Lab. The research conducted in this time 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.

2016 **VISITING PHD STUDENT AT THE DELFT UNIVERSITY OF TECHNOLOGY, DELFT, THE NETHERLAND**
3 Months as Visitor Student. The research conducted in this time period resulted in the definition of TACO, a code smell detection approach exploiting textual-based information, and its empirical evaluation [C11, J8].

10 AWARDS AND RECOGNITION

2020 **OUTSTANDING REVIEWER AWARD**
e-Informatica Software Engineering Journal (EISEJ)

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

2019 **DISTINGUISHED REVIEWER AWARD**
27th IEEE/ACM International Conference on Program Comprehension (ICPC)**.**

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

2018 **BEST PAPER HONOURABLE MENTION FOR [C40]**
21th ACM International Conference on Computer Supported Cooperative Work (CSCW), New York, USA.

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

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

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

2018 **BEST TOOL DEMO AWARD FOR [C29]**
33rd IEEE International Conference on Software Maintenance and Evolution (ICSME), Shanghai, China.

2017 **IEEE COMPUTER SOCIETY BEST PHD THESIS AWARD**
For my PhD Thesis named: "Code Smells: Relevance of the Problem and Novel Detection Techniques".

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

2017 **IEEE/TCSE DISTINGUISHED PAPER AWARD FOR [C23]**
33rd IEEE International Conference on Software Maintenance and Evolution (ICSME), Shanghai, China.

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

2015 **ACM/SIGSOFT DISTINGUISHED PAPER AWARD FOR [C4]**
37th ACM/IEEE International Conference of Software Engineering (ICSE), Firenze, Italy.

2015 **BRONZE MEDAL AT THE STUDENT RESEARCH COMPETITION FOR [C5]**
37th ACM/IEEE International Conference of Software Engineering (ICSE), Firenze, Italy.

2013 **ACM/SIGSOFT DISTINGUISHED PAPER AWARD FOR [C2]**
28th ACM/IEEE International Conference on Automated Software Engineering (ASE), Palo Alto, USA.

11 GRANTS

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

12.1 INTERNATIONAL JOURNALS

[J36] 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), in press, 2021.

[J35] 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), in press, 2021.

[J34] 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.

[J33] 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.

[J32] G. Grano, **F. Palomba**, H. Gall.
Lightweight Assessment of Test Case Effectiveness using Source Code Quality Indicators.
IEEE Transactions on Software Engineering (TSE), in press, 2021.

[J31] 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.

[J30] **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.

[J29] **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.

[J28] 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 (EWA), Vol. 166, pp. 114076, 2020.

[J27] 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.

[J26] D. Tamburri, K. Blincoe, **F. Palomba**, R. Kazman.
"The Canary in the Coal Mine…": A Cautionary Tale from the Decline of SourceForge.
Wiley's Software Practice and Experience (SPE), Vol. 50, Issue 10, pp. 1930-1951, 2020.

[J25] 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.

[J24] G. Catolino, **F. Palomba**, D. Tamburri, A. Serebrenik, F. Ferrucci.
Gender Diversity and Community Smells: Insights from the Trenches.
IEEE Software, Vol. 37, Issue 1, pp. 10-16, 2020.

[J23] 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.

[J22] 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.

[J21] 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.

[J20] C. Vassallo, G. Grano, **F. Palomba**, H. Gall, A. Bacchelli.
A Large-Scale Empirical Exploration on Refactoring Activities in Open Source Software Projects.
Elsevier's Science of Computer Programming (SCP), Vol. 180, pp. 1-15, 2019.

[J19] 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.

[J18] 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.

[J17] M. Ilyas Azeem, **F. Palomba**, 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.

[J16] 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.

[J15] 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.

[J14] 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.

[J13] **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.

[J12] **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.

[J11] **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.

[J10] 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.

[J9] **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.

[J8] **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.

[J7] **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.

[J6] 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.

[J5] 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.

[J4] 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.

[J3] M. Tufano, **F. Palomba**, G. Bavota, R. Oliveto, M. Di Penta, A. De Lucia, D. Poshyvanyk.
There and Back Again: Can You Compile That Snapshot?
Wiley's Journal on Software Maintenance: Evolution and Process (JSEP), Vol. 29, N. 4, pp. 1-20, 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

[C60] 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), in press, Madrid, Spain, 2021.

[C59] 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.

[C58] 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.

[C57] 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.

[C56] F. Pecorelli, G. Di Lillo, **F. Palomba**, A. De Lucia.
VITRUM: A Plug-In for the Visualization of Test-Related Metrics.
In Proceedings of the 15th International Conference on Advanced Visual Interfaces (AVI 2020), pp. 1-3, Ischia, Italy, 2020.

[C55] M. De Stefano, M. Gambardella, F. Pecorelli, **F. Palomba**, A. De Lucia.
cASpER: A Plug-In for Automated Code Smell Detection and Refactoring.
In Proceedings of the 15th International Conference on Advanced Visual Interfaces (AVI 2020), pp. 1-3, Ischia, Italy, 2020.

[C54] G. Cascavilla, J. Slabber, **F. Palomba**, D. Di Nucci, D. Tamburri, W.J. van den Heuvel.

Counterterrorism for Cyber-Physical Spaces: A Computer Vision Approach.
In Proceedings of the 15th International Conference on Advanced Visual Interfaces (AVI 2020), pp. 1-5, Ischia, Italy, 2020.

[C53] 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.

[C52] 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.

[C51] 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.

[C50] 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), in press, Seoul, South Korea, 2020.

[C49] 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.

[C48] 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.

[C47] 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.

[C46] A. Peruma, K. Almalki, C. Newman, M. Mkaouer, A. Ouni, **F. Palomba**.
On the Distribution of Test Smells in Open-Source Android Applications: An Exploratory Study.
In Proceedings of the 29th International Conference on Computer Science and Software Engineering (CASCON), pp. 193-202, Ontario, Canada, 2020.

[C45] 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.

[C44] 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.

[C43] 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.

[C42] 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.

[C41] 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.

[C40] 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.**

[C39] 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.

[C38] 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.

[C37] 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.

[C36] **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.

[C35] 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.

[C34] D. Di Nucci, **F. Palomba**, A. De Lucia.
Evaluating the Adaptive Selection of Classifiers for Cross-Project Bug Prediction
In Proceedings of the 1st International Workshop on Realizing Artificial Intelligence Synergies in Software Engineering (RAISE 2018), Vol. 2, pp. 48-54, Gothenburg, Sweden, 2018.

[C33] 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.

[C32] 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.

[C31] D. A. Tamburri, D. Di Nucci, L. Di Giacomo, **F. Palomba**.
Omniscient DevOps Analytics.
In Proceedings of the 1st International Workshop on Software Engineering Aspects of Continuous Development and New Paradigms of Software Production and Development (DEVOPS 2018), pp. 48-59, Chateau de Villebrumier, France 2018.

[C30] L. Pascarella, F. Geiger, **F. Palomba**, D. Di Nucci, I. Malavolta, A. Bacchelli.
Self-Reported Activities of Android Developers.
In Proceedings of the IEEE/ACM International Conference on Mobile Software Engineering and Systems (MobileSoft 2018), Vol. 1, pp. 144-155, Gothenburg, Sweden, 2018.

[C29] G. Grano, A. Ciurumelea, S. Panichella, **F. Palomba**, H. Gall.
BECLoMA: Augmenting Stack Traces with User Review Information
In Proceedings of the Tool Demo Track 25th International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Vol. 1, pp. 522-526, Campobasso, Italy, 2018 – **Best Tool Demo Paper Award.**

[C28] 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.

[C27] 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.

[C26] 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.

[C25] 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.

[C24] **F. Palomba**, A. Serebrenik, A. Zaidman.
Social Debt Analytics for Improving the Management of Software Evolution Tasks.
In Proceedings of the 16th Belgian-Netherlands Software Evolution Symposium (BENEVOL 2017), pp. 18-21, Antwerp, Belgium, 2017.

[C23] **F. Palomba**, A. Zaidman.
Does Refactoring of Test Smells Induce Fixing Flaky Tests?
In Proceedings of the 33rd International Conference on Software Maintenance and Evolution (ICSME 2017), Vol. 1, pp. 1-12, Shangai, China, 2017 – **IEEE/TCSE Distinguished Paper Award.**

[C22] 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.

[C21] **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.

[C20] **F. Palomba**, R. Oliveto, A. De Lucia.

Investigating Code Smell Co-Occurrences using Association Rule Mining: A Replicated Study
In Proceedings of the 1st International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2017), Vol. 2, pp. 8-13, Klagenfurt, Austria, 2017.

[C19] **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.

[C18] 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.

[C17] 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.

[C16] **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.

[C15] **F. Palomba.**
Alternative Sources of Information for Code Smell Detection: Postcards from Far Away.
In Proceedings of the 32nd IEEE International Conference on Software Maintenance and Evolution (ICSME 2016), Vol. 1, pp. 636-640, Raleigh, USA, 2016.

[C14] 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.

[C13] **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.

[C12] **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.

[C11] **F. Palomba**, A. Panichella, A. De Lucia, R. Oliveto, A. Zaidman.
A Textual-based Technique for Smell Detection.
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