

# Dario Di Nucci

## Curriculum Vitae - Including Summary of Publications

Dario Di Nucci, Male, Italian <b>DATE OF BIRTH:</b> September 3rd, 1988 <b>PLACE OF BIRTH:</b> Isernia, Italy <b>Languages:</b> Italian (native), English (C1)	<b>ADDRESS:</b> Via Raffaele Iorio, 27 - 86170 Isernia - IT <b>E-MAIL:</b> <a href="mailto:ddinucci@unisa.it">ddinucci@unisa.it</a> <b>WEBSITE:</b> <a href="http://dardin88.github.io">http://dardin88.github.io</a>
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Dario Di Nucci is an assistant professor at the Software Engineering (SeSa) Lab of the University of Salerno. He received a European Ph.D. degree in Management & Information Technology from the University of Salerno in 2018, advised by Prof. Andrea De Lucia.

His research is on empirical software engineering, particularly software maintenance and evolution and software testing, where he applies machine learning, search-based algorithms, and mining of software repositories.

He is a member at large of the IEEE Conference Activities Committee. He serves as editor for Elsevier Journal of Systems and Software and Elsevier Science of Computer Programming, program committee member for international conferences, and referee for international journals in software engineering and artificial intelligence, for which he received several Distinguished/Outstanding Reviewer Awards.

He is an IEEE Software initiative team member and the social media manager of Elsevier Science of Computer Programming. He is a member of the OASIS TOSCA technical committee and co-leads the OASIS TOSCA "Emerging Compute Platforms ad-hoc".

## LICENSES AND CERTIFICATIONS

2023	<b>ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 09/H1 - SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI - FASCIA I</b> Issued by Italian Ministry of University and Research. Valid from 15/06/2023 to 15/06/2034 <a href="https://asn21.cineca.it/pubblico/miur/esito/09%252FH1/1/5">https://asn21.cineca.it/pubblico/miur/esito/09%252FH1/1/5</a>
2022	<b>BASIC KWALIFICATIE ONDERWIJS (BKO) - UNIVERSITY TEACHING QUALIFICATION (UTQ)</b> Issued by Tilburg University
2020	<b>ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 01/B1 - INFORMATICA - FASCIA II</b> Issued by Italian Ministry of University and Research. Valid from 23/11/2020 to 23/11/2030 <a href="https://asn18.cineca.it/pubblico/miur/esito-abilitato/01%252FB1/2/5">https://asn18.cineca.it/pubblico/miur/esito-abilitato/01%252FB1/2/5</a>  <b>ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 09/H1 - SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI - FASCIA II</b> Issued by Italian Ministry of University and Research. Valid from 13/11/2020 to 13/11/2030 <a href="https://asn18.cineca.it/pubblico/miur/esito-abilitato/09%252FH1/2/5">https://asn18.cineca.it/pubblico/miur/esito-abilitato/09%252FH1/2/5</a>
2014	<b>ABILITAZIONE ALLA PROFESSIONE DI INGEGNERE</b> Issued by University of Molise in December 2014

## EMPLOYMENT HISTORY

01/2022 - CURRENT	<b>ASSISTANT PROFESSOR (I.E., RICERCATORE A TEMPO DETERMINATO DI TIPO B)</b> University of Salerno (UNISA), Italy Course Holder and Lecturer for several courses (see the Teaching section)
01/2020 - 12/2021	<b>ASSISTANT PROFESSOR</b> Jheronimus Academy of Data Science (JADS), Tilburg University, The Netherlands Work Package Leader of the EU Horizon 2020 project "RADON: Rational decomposition and orchestration for serverless computing" ( <a href="https://radon-h2020.eu/">https://radon-h2020.eu/</a> )

M.Sc. Thesis Coordinator  
Course Holder and Lecturer for several courses (see the Teaching section)

- 01/2018 - 12/2019**      **POST-DOCTORAL RESEARCHER**  
Vrije Universiteit Brussel (VUB), Belgium  
Researcher in the FWO EOS project "SECO-ASSIST: Automated Assistance for Developing Software in Ecosystems of the Future" (<https://secoassist.github.io/>)  
Researcher in the Innoviris TeampUP project "INTIMALS INTElligent Modernisation Assistance for Legacy Software" (<http://soft.vub.ac.be/intimals/>)  
Lecturer of Capita Selecta of Software Engineering (M.Sc. in Computer Science)
- 12/2014 - 03/2018**      **PH.D. STUDENT IN MANAGEMENT & INFORMATION TECHNOLOGY**  
University of Salerno, Italy  
Fully funded by University of Salerno. Advisor: Prof. Andrea De Lucia

## EDUCATION

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- 12/2014 - 03/2018**      **DOCTOR OF PHILOSOPHY (PH.D.) IN MANAGEMENT & INFORMATION TECHNOLOGY**  
University of Salerno, Italy  
Fully funded by University of Salerno  
Dissertation: "Methods and Tools for Focusing and Prioritizing the Testing Effort"  
Advisor: Prof. Andrea De Lucia
- 06/2017**      **13<sup>TH</sup> INTERNATIONAL SUMMER SCHOOL ON SOFTWARE ENGINEERING (ISSSE)**  
University of Salerno, Italy
- 03/2017 - 05/2017**      **VISITING STUDENT**  
**05/2016 - 07/2016**      Delft University of Technology, The Netherlands  
Advisor: Prof. Andy Zaidman
- 06/2016**      **12<sup>TH</sup> INTERNATIONAL SUMMER SCHOOL ON SOFTWARE ENGINEERING (ISSSE)**  
University of Salerno, Italy
- 09/2015**      **INTERNATIONAL SUMMER SCHOOL ON SOFTWARE ENGINEERING (SE SCHOOL@UNIBZ 2015)**  
Free University of Bolzano, Italy
- 03/2013**      **ERASMUS IP HUMAN-MACHINE INTERACTION**  
Reims, France
- 10/2011 - 09/2014**      **MASTER'S DEGREE (M.Sc.) IN COMPUTER SCIENCE**  
University of Salerno, Italy  
110/110 cum laude  
Dissertation: "A defect prediction model based on relationships between developers and modified files"  
Promotor: Prof. Andrea De Lucia
- 10/2007 - 05/2011**      **BACHELOR'S DEGREE (B.Sc.) IN COMPUTER SCIENCE**  
University of Molise, Italy  
110/110 cum laude  
Dissertation: "Applications of mathematical models to semantic research"  
Promotor: Prof. Giovanni Capobianco

## PROMOTED COLLABORATIVE RESEARCH PROJECTS

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**09/2023 - 09/2025**     **SMARTITUDE: AUTOMATED TESTING AND SECURITY ASSESSMENT OF SMART CONTRACTS**  
PRIN: Progetti di Ricerca di Rilevante Interesse Nazionale – Bando 2022  
Additional Promotors: Carlos E. Budde (UNITN), Mariano Ceccato (UNIVR)

## TEACHING

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**SOFTWARE ENGINEERING FOR SECURE CLOUD SYSTEMS** (mandatory course of the master's in computer science)  
University of Salerno, Italy  
Lecturer (course holder: Prof. Carmine Gravino) – Spring 2024

**FUNDING AND MANAGEMENT OF RESEARCH PROJECTS** (course of the Ph.D. in computer science)  
University of Salerno, Italy  
Lecturer (course holder: Prof. Andrea De Lucia) - Winter 2023

**SOFTWARE DEPENDABILITY** (mandatory course of the master's in computer science)  
University of Salerno, Italy  
Course holder - Spring 2023 and Fall 2023  
Lecturer (course holder: Dr. Fabio Palomba) - Spring 2022

**OBJECT ORIENTED PROGRAMMING** (mandatory course of the bachelor's in computer science)  
University of Salerno, Italy  
Lecturer (course holder: Prof. Vincenzo Deufemia) - Fall 2022 and Fall 2023

**EMPIRICAL RESEARCH METHODS** (course of the Ph.D. in computer science)  
University of Salerno, Italy  
Course holder (taught with Dr. Fabio Palomba) - Summer 2023

**SOFTWARE ENGINEERING, MANAGEMENT, AND EVOLUTION** (mandatory course of the master's in computer science)  
University of Salerno, Italy  
Lecturer (course holder: Prof. Andrea De Lucia) - Spring 2022

**DATA ENGINEERING** (mandatory course of the master's in data science and Entrepreneurship)  
Jheronimus Academy of Data Science, (Tilburg University, Eindhoven University of Technology), The Netherlands  
Lecturer (course holder: Prof. Damian A. Tamburri) - Fall 2020 and Fall 2021

**INTRODUCTION TO MACHINE LEARNING** (mandatory course of the Pre-master's in data science and Entrepreneurship)  
Jheronimus Academy of Data Science, (Tilburg University, Eindhoven University of Technology), The Netherlands  
Course holder - Spring 2021  
Lecturer (course holder: Prof. Damian A. Tamburri) - Spring 2020

**DATA STATISTICS** (mandatory course of the bachelor's in data science)  
Tilburg University, Eindhoven University of Technology, The Netherlands  
Lecturer (course holder: Prof. Maurits C. Kaptein) - Fall 2019

**CAPITA SELECTA OF SOFTWARE ENGINEERING** (elective course of the master's in computer science)  
Vrije Universiteit Brussel, Belgium  
Lecturer (course holder: Prof. Coen De Roover) - annual course - 2018/2019 and 2019/2020

**SOFTWARE ENGINEERING, MANAGEMENT AND EVOLUTION** (mandatory course of the master's in computer science)  
University of Salerno, Italy  
Teaching assistant (course holder: Prof. Andrea De Lucia) - Spring 2016 and Spring 2017

**SOFTWARE ENGINEERING** (mandatory course of the bachelor's in computer science)  
University of Salerno, Italy  
Teaching assistant (course holder: Prof. Andrea De Lucia) - Fall 2015 and Fall 2016

**WEB DEVELOPMENT** (mandatory course in the bachelor's in computer science)  
University of Salerno, Italy  
Teaching assistant - Fall 2016

**PROGRAMMING I** (mandatory course in the bachelor's in computer science)  
University of Salerno, Italy  
Teaching assistant - Fall 2015 (course holder: Prof. Enrico Fischetti) and Fall 2016 (course holder: Dr. Riccardo Di Stasi)

**SOFTWARE ENGINEERING: MAINTENANCE AND TESTING** (mandatory course of the master's in computer science)  
University of Salerno, Italy  
Teaching assistant (course holder: Prof. Andrea De Lucia) - Fall 2015

## SUPERVISION

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### SUPERVISED PH.D. THESES

- 2023**      **[PT2] CATCHING BUGS IN THE CLOUD: PREDICTIVE MAINTENANCE OF IAC VIA DEFECT PREDICTION AND CODE SMELL DETECTION TO CONTINUOUSLY IMPROVE QUALITY**  
Stefano Dalla Palma - Promotor: Prof. Willem-Jan van den Heuvel - Tilburg School of Humanities and Digital Science
- 2020**      **[PT1] AN AUTOMATED DELTA-DEBUGGING APPROACH TO RESILIENCE TESTING OF ACTOR SYSTEMS THROUGH FAULT INJECTION**  
Jonas De Bleser - Promotor: Prof. Coen De Roover - VUB

### PROMOTED MASTER'S THESES

- 2022**      **[MT17] MACHINE LEARNING FOR CODE SEARCH: A SYSTEMATIC REVIEW AND INDUSTRIAL FEASIBILITY STUDY**  
Ashley Van Can - M.Sc. in Data Science and Entrepreneurship – JADS
- [MT14] DUTCH TEXT GENERATION TO COMBAT CLASS IMBALANCE**  
Ellen Mans - M.Sc. in Data Science and Entrepreneurship - JADS
- [MT10] PREDICTING REVENUE OF COMMERCIAL CLIENTS OF A DUTCH FINANCIAL INSTITUTION USING MACHINE LEARNING**  
Jens van de Zande - M.Sc. in Data Science and Entrepreneurship - JADS

### SUPERVISED MASTER'S THESES

- 2022**      **[MT16] DETECTING ROAD SURFACE ANOMALIES USING MULTIMODAL MACHINE LEARNING**  
Joël Luijmes - M.Sc. in Data Science and Entrepreneurship - Promotor: Prof. Willem-Jan van den Heuvel - JADS
- [MT15] ON THE USE OF AUTOMATIC CLASSIFICATION FOR BUG TRIAGING IN INDUSTRY**  
Christos Kitsanelis - M.Sc. in Computer Science and Engineering - Promotor: Dr. Eleni Constantinou – TU/e
- 2021**      **[MT13] ENRICHING A POINTS-OF-INTEREST DATASET BY APPLYING LOCATION EXTRACTION AND WEBSITE CLASSIFICATION ON SCRAPED BUSINESS WEBSITES**  
Paulo Rijnberg - M.Sc. in Data Science and Entrepreneurship - Promotor: Dr. Daan Kolkman - JADS
- [MT12] TOWARD FURTHER AUTOMATION OF WEAK SUPERVISION - A TEXT CLASSIFICATION CASE STUDY**  
Christos Papasimos - M.Sc. in Data Science and Entrepreneurship - Promotor: Prof. Damian A. Tamburri - JADS

**[MT11] VARIATIONAL TASK ENCODERS FOR MODEL-AGNOSTIC META-LEARNING WITH UNCERTAINTY OVER TASK DISTRIBUTIONS**

Luuk Schagen - M.Sc. in Data Science and Entrepreneurship - Promotor: Dr. Joaquin Vanschoren - JADS

**[MT9] PREDICTING SECURITY-RELEVANT COMMITS WITH STATIC CODE ANALYZERS**

Therese Fehrer - M.Sc. in Data Science and Entrepreneurship - Promotor: Prof. Damian A. Tamburri - JADS

**2020 [MT8] SOURCE CODE MEASUREMENTS FOR MACHINE LEARNING-BASED SMELL DETECTION IN INFRASTRUCTURE AS CODE: A TOSCA CASE-STUDY**

Chiel van Asseldonk - M.Sc. in Data Science and Entrepreneurship - Promotor: Prof. Damian A. Tamburri - JADS

**[MT7] MEASURING COMPETITIVENESS BASED ON INSTAGRAM FOLLOWER COMMUNICATION**

Niels van Gorsel - M.Sc. in Data Science and Entrepreneurship - Promotor: Dr. Shantanu Mullick - JADS

**[MT6] HEURISTIC-GUIDED RESILIENCE TESTING OF PERSISTENT ACTOR IMPLEMENTATIONS**

Patrick Muriuki Gakuo - M.Sc. in Computer Science - Promotor: Prof. Coen De Roover - VUB

**2016 [MT5] CHECKAPP: A TOOL FOR MONITORING JAVA APPLICATION PERFORMANCE**

Elisa D'Eugenio - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[MT4] PETRA: A POWER ESTIMATION TOOL FOR ANDROID APPLICATIONS**

Antonio Prota - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**2015 [MT3] DEVELOPMENT AND COMPARISON OF NOVEL TECHNIQUES FOR SEARCH-BASED TEST DATA GENERATION**

Giovanni Grano - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[MT2] DESIGN AND DEVELOPMENT OF A TOOL FOR THE AUTOMATIC GENERATION OF TEST CASES**

Simone Scalabrino - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[MT1] A COMBINED MODEL FOR THE PREDICTION OF DEFECTS**

Giuseppe De Rosa - M.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

## **PROMOTED BACHELOR'S THESES**

**2022 [BT12] BLOCKCHAIN ANALYSIS AND DEVELOPMENT OF AN APPLICATION IN SOLIDITY**

Luigi Allocca - B.Sc. in Computer Science – UNISA

**[BT11] ANALYSIS OF AUTONOMOUS DRIVING SYSTEMS IN A SIMULATED ENVIRONMENT**

Mihai Alexandru Burlacu - B.Sc. in Computer Science - UNISA

## **SUPERVISED BACHELOR'S THESES**

**2022 [BT13] ENERGY CONSUMPTION OF DATA STRUCTURES IN JAVA: AN EMPIRICAL STUDY**

Nicolò Delogu - B.Sc. in Computer Science - Promotor: Dr. Fabio Palomba - UNISA

**[BT10] IDENTIFICATION OF LINGUISTIC SMELLS IN INFRASTRUCTURE AS CODE**

Daniilo Aliberti - B.Sc. in Computer Science - Promotor: Dr. Fabio Palomba - UNISA

**2017 [BT9] DESIGN AND DEVELOPMENT OF METHODS FOR TEST CASE MINIMIZATION**

Francesco De Feo - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[BT8] DESIGN AND DEVELOPMENT OF METHODS FOR TEST CASE PRIORITIZATION**

Giuseppe Sessa - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[BT7] DESIGN AND DEVELOPMENT OF A PLUGIN FOR OPTIMIZING REGRESSION TESTING**

Gerardo Della Monica - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[BT6] DESIGN AND DEVELOPMENT OF A PLUGIN FOR DETECTING ENERGY DEFECTS OF MOBILE APPLICATIONS**  
Sara Zaino - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[BT5] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL**  
Giuseppina Tufano - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[BT4] DEVELOPMENT OF A SOFTWARE ENERGY ESTIMATION METHODOLOGY IN AN INTEGRATED DEVELOPMENT ENVIRONMENT**  
Roberto Contaldo - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[BT3] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL BY USING CROSS-PROJECT TECHNIQUES**  
Pasquale Martiniello - B.Sc. in Computer Science - Advisor: Prof. Andrea De Lucia - UNISA

**2016 [BT2] TRIO: A TOOL FOR REGRESSION TESTING OPTIMIZATION**  
Antonio Luca D'Avanzo - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

**[BT1] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL**  
Fabiano Pecorelli - B.Sc. in Computer Science - Promotor: Prof. Andrea De Lucia - UNISA

## PROFESSIONAL SERVICES TO THE SCIENTIFIC COMMUNITY

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### EDITORIAL BOARD MEMBER OF INTERNATIONAL SCIENTIFIC JOURNALS

**05/2021 - CURRENT** Elsevier Science of Computer Programming (SCICO)  
**03/2021 - CURRENT** Elsevier Journal of Systems and Software (JSS)  
**05/2020 - CURRENT** IEEE Software Initiatives Team  
**09/2020** Guest Editor for Elsevier Science of Computer Programming (SCICO) for the Special Issue on "Software Health of Software Ecosystems"

### REVIEWER FOR INTERNATIONAL SCIENTIFIC JOURNALS

Transactions on Software Engineering - IEEE  
Transactions on Software Engineering and Methodology - ACM  
IEEE Software - IEEE  
Journal of Systems and Software - Elsevier  
Empirical Software Engineering - Springer  
Journal of Software: Evolution and Process - Wiley  
Information and Software Technology - Elsevier  
Science of Computer Programming - Elsevier  
IEEE Access - IEEE  
IET Software - Institution of Engineering and Technology  
Software Quality Journal – Springer

### ORGANIZATION OF SCIENTIFIC EVENTS

**2023 PROGRAM CHAIR**  
49<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications (Euromicro SEAA 2023)  
Durrës, Albania  
  
**CHAIR**  
16<sup>th</sup> International Summer School on Software Engineering (ISSSE)  
Salerno, Italy

**PROGRAM CHAIR**

15<sup>th</sup> Seminar on Advanced Techniques & Tools for Software Evolution (SATToSE 2023)  
Salerno, Italy

**2021****ORGANIZER**

20<sup>th</sup> Belgium-Netherlands Software Evolution Workshop (BENEVOL)  
Virtual (originally 's-Hertogenbosch, The Netherlands)

**TOOL DEMO CHAIR**

29<sup>th</sup> IEEE/ACM International Conference on Program Comprehension (ICPC)  
Virtual (originally Madrid, Spain)

**2020****ORGANIZER**

3<sup>rd</sup> International Workshop on Software Health (SoHeal)  
Virtual (originally Seoul, South Korea)

**PUBLICITY CHAIR**

27<sup>th</sup> IEEE/ACM International Conference on Program Comprehension (ICPC)  
Virtual (originally Seoul, South Korea)

**2019****ORGANIZER**

18<sup>th</sup> Belgium-Netherlands Software Evolution Workshop (BENEVOL)  
Brussels, Belgium

**2017****SCIENTIFIC SECRETARIAT**

13<sup>th</sup> International Summer School on Software Engineering (ISSSE)  
Salerno, Italy

**2016****SCIENTIFIC SECRETARIAT**

12<sup>th</sup> International Summer School on Software Engineering (ISSSE)  
Salerno, Italy

**PROGRAM COMMITTEE MEMBER OF INTERNATIONAL CONFERENCES****2024**

32<sup>nd</sup> ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE)  
Research Track

**2023**

23<sup>rd</sup> IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM)  
Research Track, Artifact Evaluation Track

23<sup>rd</sup> International Conference on Product-Focused Software Process Improvement 2023 (PROFES)  
Research Track

39<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
Research Track, New Ideas and Emerging Results Track, Tool Demo Track, Artifact Evaluation Track

10<sup>th</sup> European Conference on Service-Oriented and Cloud Computing (ESOCC)  
Research Track

45<sup>th</sup> IEEE/ACM International Conference on Software Engineering (ICSE)  
Software Engineering in Practice Track, Artifact Evaluation Track, Poster Track

31<sup>st</sup> IEEE/ACM International Conference on Program Comprehension (ICPC)  
Research Track

20<sup>th</sup> IEEE/ACM International Conference on Mining Software Repositories (MSR)  
Technical Papers Track

	30 <sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track
<b>2022</b>	22 <sup>nd</sup> IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) Research Track, Artifact Evaluation Track
	38 <sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME) Tool Demo Track, Artifact Evaluation Track
	44 <sup>th</sup> IEEE/ACM International Conference on Software Engineering (ICSE) Student Research Competition Track
	30 <sup>th</sup> IEEE/ACM International Conference on Program Comprehension (ICPC) Research Track
	9 <sup>th</sup> IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) Technical Papers Track
	19 <sup>th</sup> IEEE/ACM International Conference on Mining Software Repositories (MSR) Technical Papers Track, Registered Report Track
	9 <sup>th</sup> European Conference on Service-Oriented and Cloud Computing (ESOCC) Project Track
	29 <sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track
<b>2021</b>	21 <sup>st</sup> IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) Research Track, Artifact Evaluation Track
	37 <sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME) Tool Demo Track, Artifact Evaluation Track
	8 <sup>th</sup> IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) Technical Papers Track
	28 <sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track, Reproducibility Studies and Negative Results Track, Tool Demo Track
<b>2020</b>	20 <sup>th</sup> IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) New Ideas and Emerging Results Track
	28 <sup>th</sup> ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) Tool Demo Track
	35 <sup>th</sup> IEEE/ACM International Conference on Automated Software Engineering (ASE) Late Breaking Results Track
	46 <sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications (SEAA) Journal First Track
	28 <sup>th</sup> International Conference on Program Comprehension (ICPC) Research Track
	27 <sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track, Journal First Track, Tool Demo Track



- 2019**      35<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
Tool Demo Track
- 27<sup>th</sup> ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE)  
Artifact Evaluation Track
- 6<sup>th</sup> IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft)  
Student Research Competition
- 2018**      34<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
Tool Demo Track
- 5<sup>th</sup> IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft)  
Student Research Competition

#### **PROGRAM COMMITTEE MEMBER OF INTERNATIONAL WORKSHOPS**

- 2023**      2<sup>nd</sup> International Workshop on the Foundations of Infrastructure Specification and Testing (FIST)
- 2022**      6<sup>th</sup> International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)  
1<sup>st</sup> International Workshop on Quantum Programming for Software Engineering (QP4SE)  
1<sup>st</sup> International Workshop on the Foundations of Infrastructure Specification and Testing (FIST)
- 2021**      5<sup>th</sup> International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)  
4<sup>th</sup> International Workshop on Software Health (SoHeal)
- 2020**      19<sup>th</sup> Belgium-Netherlands Software Evolution Workshop (BENEVOL)  
4<sup>th</sup> International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)
- 2019**      2<sup>nd</sup> International Workshop on Cloud-Native Applications Design and Experience (CNAX)  
3<sup>rd</sup> International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)
- 2018**      1<sup>st</sup> International Workshop on Cloud-Native Applications Design and Experience (CNAX)  
2<sup>nd</sup> Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)

#### **REVIEWER FOR INTERNATIONAL CONFERENCES**

- 2022**      38<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
Research Track  
15<sup>th</sup> Innovations in Software Engineering Conference (ISEC)
- 2021**      29<sup>th</sup> International Conference on Program Comprehension (ICPC)  
Research Track
- 2020**      36<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
Research Track

- 24<sup>th</sup> International Conference on Evaluation and Assessment in Software Engineering (EASE)  
Research Track
- 2019** 35<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
Research Track
- 27<sup>th</sup> International Conference on Program Comprehension (ICPC)  
Research Track
- 16<sup>th</sup> IEEE/ACM International Conference on Mining Software Repositories (MSR)  
Technical Papers Track
- 2018** 34<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
Research Track
- 25<sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)  
Research Track
- 2019** 24<sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)  
Research Track
- 2017** 19<sup>th</sup> International Conference on Enterprise Information Systems (ICEIS)
- 2016** 32<sup>nd</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME)  
New Ideas and Emerging Results Track
- 24<sup>th</sup> International Conference on Program Comprehension (ICPC)  
Research Track
- 19<sup>th</sup> International Conference on Business Information Systems (BIS)
- 22<sup>nd</sup> International Conference on Distributed Multimedia Systems (DMS)
- 18<sup>th</sup> International Conference on Enterprise Information Systems (ICEIS)
- 2015** 18<sup>th</sup> International Conference on Business Information Systems (BIS)
- 21<sup>st</sup> International Conference on Distributed Multimedia Systems (DMS)
- 17<sup>th</sup> International Conference on Enterprise Information Systems (ICEIS)

## INVITED TALKS

- 2023** **[T13] THE QUANTUM FRONTIER OF SOFTWARE ENGINEERING AND ITS ADOPTION**  
SWForum.eu: Workshop on Future Challenges in SE, Politecnico di Milano, Milan, June 27<sup>th</sup>, 2023
- [T12] THE DO'S AND DON'TS OF INFRASTRUCTURE CODE: A SYSTEMATIC GREY LITERATURE REVIEW**  
Dagstuhl Seminar 23082, Dagstuhl, February 21<sup>st</sup>, 2023
- 2022** **[T11] MACHINE LEARNING FOR SOFTWARE ENGINEERING: THE NEW GOLD RUSH**  
Smart Services and Data-driven Societies Summit, University of Molise, Termoli, Italy, July 25<sup>th</sup>, 2022
- 2021** **[T10] CODE SMELL DETECTION: THE ECSTASY OF MACHINE LEARNING**  
Utrecht University, Utrecht, October 6<sup>th</sup>, 2021
- [T9] MACHINE LEARNING FOR SOFTWARE ENGINEERING: THE GOOD, THE BAD, AND THE UGLY**  
University of Milano Bicocca, Virtual, July 7<sup>th</sup>, 2021

- [T8] IMPROVING ENERGY EFFICIENCY OF MOBILE APPLICATIONS IN THE INTERNET OF THINGS**  
Summer School on IoT, University of Salerno, Virtual, April 9<sup>th</sup>, 2021
- 2020**      **[T7] MACHINE LEARNING FOR SOFTWARE ENGINEERING: THE GOOD, THE BAD, AND THE UGLY**  
Eindhoven University of Technology, Virtual, December 10<sup>th</sup>, 2020
- [T6] IMPROVING ENERGY EFFICIENCY OF MOBILE APPLICATIONS IN THE INTERNET OF THINGS**  
Summer School on IoT, University of Salerno, Virtual, June 3<sup>rd</sup>, 2020
- [T5] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT**  
University of Salerno, Virtual, March 25<sup>th</sup>, 2020
- 2019**      **[T4] MINING SOURCE CODE^3: MINING IDIOMS, USAGES, AND EDITS**  
FOSDEM, Brussels, Belgium, February 3<sup>rd</sup>, 2019
- 2018**      **[T3] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT**  
Jheronimus Academy of Data Science, 's-Hertogenbosch, The Netherlands, March 9<sup>th</sup>, 2018
- 2017**      **[T2] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT**  
Jheronimus Academy of Data Science, 's-Hertogenbosch, The Netherlands, December 5<sup>th</sup>, 2017
- [T1] DIAGNOSE AND DETECT ENERGY FLAWS OF ANDROID APPS**  
Vrije Universiteit Brussel, Brussels, Belgium. March 23<sup>rd</sup>, 2017

## MEMBERSHIPS

- 04/2021 - CURRENT**      **MEMBER-AT-LARGE OF THE IEEE CONFERENCE ACTIVITIES COMMITTEE (CAC)**
- 11/2020 - CURRENT**      **CO-LEADER OF THE OASIS TOSCA EMERGING COMPUTE PLATFORMS AD-HOC (TOSCA-ECAH)**
- 01/2020 - CURRENT**      **MEMBER OF THE OASIS TOSCA TECHNICAL COMMITTEE**

## AWARDS

- 2023**      **BEST REVIEWER AWARD 2022**  
Journal of Systems and Software (JSS), Elsevier
- 2022**      **TOP REVIEWER AWARD 2021**  
Information and Software Technology (IST), Elsevier
- BEST REVIEWER AWARD 2021**  
Journal of Systems and Software (JSS), Elsevier
- 2021**      **DISTINGUISHED REVIEWER AWARD 2020**  
Transactions on Software Engineering and Methodologies (TOSEM), ACM
- BEST REVIEWER AWARD 2020**  
Journal of Systems and Software (JSS), Elsevier
- 2020**      **BEST REVIEWER AWARD 2019**  
Journal of Systems and Software (JSS), Elsevier
- 2017**      **NSF TRAVEL SUPPORT**  
Symposium on Search-Based Software Engineering (SSBSE), Raleigh, NC, United States
- 2015**      **ACM SIGSOFT STUDENT TRAVEL GRANT**  
37<sup>th</sup> ACM/IEEE International Conference on Software Engineering (ICSE), Florence, Italy

## COMMITTEE MEMBER OF PH.D. JURIES

**2020**      **INVESTIGATING PERFORMANCE ISSUES IN MOBILE APPS**  
Teerath Das, Gran Sasso Science Institute, Italy  
advised by Prof. Massimiliano Di Penta and Dr. Ivano Malavolta

## COMMITTEE MEMBER OF PDENG JURIES

**2021**      **PREDICTING SALES QUANTITY FOR NEWLY PUBLISHED BOOKS IN BRUNA STORES**  
Kristof Menyhert, Jheronimus Academy of Data Science, The Netherlands

**CUSTOMER ANALYSIS AND A DESIGN OF A CROSS-DOMAIN PERSONALIZED RECOMMENDER SYSTEM FOR AUDAX GROEP**  
Bethany Orense, Jheronimus Academy of Data Science, The Netherlands

## ACADEMIC RECORD

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Journal Articles: 19  
Conference Papers: 14 (main track), 8 (tool demonstration track), 8 (miscellaneous tracks)  
Workshop Papers: 10

Citations: 1804 on Google Scholar, h-index: 24, <https://scholar.google.it/citations?user=YJqcbnIAAAAJ>  
1166 on Scopus, h-index: 19, <https://www.scopus.com/authid/detail.uri?authorId=57016777600>

## JOURNAL PAPERS

**[J19] A TEXT CLASSIFICATION APPROACH TO API TYPE RESOLUTION FOR INCOMPLETE CODE SNIPPETS**

C. Velázquez-Rodríguez, D. Di Nucci, C. De Roover  
Elsevier Science of Computer Programming (SCICO), 2023, Volume 27, 26 pages

**[J18] "THROUGH THE LOOKING-GLASS..." AN EMPIRICAL STUDY ON BLOB INFRASTRUCTURE BLUEPRINTS IN TOSCA**

S. Dalla Palma, C. van Asseldonk, G. Catolino, D. Di Nucci, F. Palomba, D. A. Tamburri  
Wiley Journal of Software: Evolution and Process (JSEP), 2023, 22 pages

**[J17] FINDICI: USING MACHINE-LEARNING TO DETECT LINGUISTIC INCONSISTENCIES BETWEEN CODE AND NATURAL LANGUAGE DESCRIPTIONS IN INFRASTRUCTURE-AS-CODE**

N. Borovits, I. Kumara, D. Di Nucci, P. Krishnan, S. Dalla Palma, F. Palomba, D. A. Tamburri, W.-J. van den Heuvel  
Springer Empirical Software Engineering (EMSE), 2022, Volume 27, Issue 7, 30 pages

**[J16] THE MAKING OF ACCESSIBLE ANDROID APPLICATIONS: AN EMPIRICAL STUDY ON THE STATE OF THE PRACTICE**

M. Di Gregorio, D. Di Nucci, F. Palomba, G. Vitiello  
Springer Empirical Software Engineering (EMSE), 2022, Volume 27, Issue 6, 37 pages

**[J15] GO SERVERLESS WITH RADON! A PRACTICAL DEVOPS EXPERIENCE REPORT**

S. Dalla Palma, G. Catolino, D. Di Nucci, D. A. Tamburri, W.-J. van den Heuvel  
IEEE Software, 2022, Volume 40, Issue 2, 10 pages, 80-89

**[J14] SOFTWARE ENGINEERING FOR QUANTUM PROGRAMMING: HOW FAR ARE WE?**

M. De Stefano, F. Pecorelli, D. Di Nucci, F. Palomba, A. De Lucia  
Elsevier Journal of Systems and Software (JSS), 2022, Volume 190, 15 pages

**[J13] THE DO'S AND DON'TS OF INFRASTRUCTURE CODE: A SYSTEMATIC GREY LITERATURE REVIEW**

I. Kumara, M. Garriga, A. U. Romeu, F. Palomba, D. Di Nucci, D. A. Tamburri, W.-J. van den Heuvel  
Elsevier Information and Software Technology (INFOSFT), 2021, Volume 137, 20 pages

**[J12] ADAPTIVE SELECTION OF CLASSIFIERS FOR BUG PREDICTION: A LARGE-SCALE EMPIRICAL ANALYSIS OF ITS PERFORMANCES AND A BENCHMARK STUDY**

F. Pecorelli, D. Di Nucci

Elsevier Science of Computer Programming (SCICO), 2021, Volume 295, 18 pages

**[J11] WITHIN-PROJECT DEFECT PREDICTION OF INFRASTRUCTURE-AS-CODE USING PRODUCT AND PROCESS METRICS**

S. Dalla Palma, D. Di Nucci, F. Palomba, D. A. Tamburri

IEEE Transactions on Software Engineering (TSE), 2021, Volume 48, Issue 6, 19 pages, 2086-2104

**[J10] PRIORITISING SERVER SIDE REACHABILITY VIA INTER-PROCESS CONCOLIC TESTING**

M. Vandercammen, L. Christophe, D. Di Nucci, W. De Meuter, C. De Roover

The Art, Science, and Engineering of Programming, 2021, Volume 5, Issue 2, 34 pages

**[J9] ANSIBLEMETRICS: A PYTHON LIBRARY FOR MEASURING INFRASTRUCTURE-AS-CODE BLUEPRINTS IN ANSIBLE**

S. Dalla Palma, D. Di Nucci, D. A. Tamburri

SoftwareX, 2020, Volume 12, 6 pages

**[J8] TOWARD A CATALOG OF SOFTWARE QUALITY METRICS FOR INFRASTRUCTURE CODE**

S. Dalla Palma, D. Di Nucci, F. Palomba, D. A. Tamburri

Elsevier Journal of Systems and Software (JSS), 2020, Volume 170, 8 pages.

**[J7] A LARGE EMPIRICAL ASSESSMENT OF THE ROLE OF DATA BALANCING IN MACHINE-LEARNING-BASED CODE SMELL DETECTION**

F. Pecorelli, D. Di Nucci, C. De Roover, A. De Lucia

Elsevier Journal of Systems and Software (JSS), 2020, Volume 169, 16 pages.

**[J6] SCENTED SINCE THE BEGINNING: ON THE DIFFUSENESS OF TEST SMELLS IN AUTOMATICALLY GENERATED TEST CODE**

G. Grano, F. Palomba, D. Di Nucci, A. De Lucia, H. Gall

Elsevier Journal of Systems and Software (JSS), 2019, Volume 156, 16 pages, 312-327

**[J5] THIRD-PARTY LIBRARIES IN MOBILE APPS WHEN, HOW, AND WHY DEVELOPERS UPDATE THEM**

P. Salza, F. Palomba, D. Di Nucci, A. De Lucia, F. Ferrucci

Springer Empirical Software Engineering (EMSE), 2019, Volume 25, 37 pages, 2341-2377

**[J4] A TEST CASE PRIORITIZATION GENETIC ALGORITHM GUIDED BY THE HYPERVOLUME INDICATOR**

D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia

IEEE Transactions on Software Engineering (TSE), 2019, Volume 46, Issue 6, 674-696

**[J3] ON THE IMPACT OF CODE SMELLS ON THE ENERGY CONSUMPTION OF MOBILE APPLICATIONS**

F. Palomba, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia

Elsevier Information and Software Technology (INFOSOFTE), 2019, Volume 105, 13 pages, 43-55

**[J2] A DEVELOPER CENTERED BUG PREDICTION MODEL**

D. Di Nucci, F. Palomba, G. De Rosa, G. Bavota, R. Oliveto, A. De Lucia

IEEE Transactions on Software Engineering (TSE), 2018, Volume 44 Issue 1, 21 pages, 5-24

**[J1] DYNAMIC SELECTION OF CLASSIFIERS IN BUG PREDICTION: AN ADAPTIVE METHOD**

D. Di Nucci, F. Palomba, R. Oliveto, A. De Lucia

IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI), 2017, Volume 1, Issue 3, 11 pages, 202-212

**CONFERENCE PAPERS, MAIN TRACK**

**[C14] A MULTIVOCAL LITERATURE REVIEW OF MLOPS TOOLS AND FEATURES**

G. Recupito, F. Pecorelli, G. Catolino, S. Moreschini, D. Di Nucci, F. Palomba, D. A. Tamburri

48<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications (Euromicro SEAA 2022)

Maspalomas, Spain, 2022, 8 pages, to appear

**[C13] EXPLOITING DYNAMIC ANALYSIS FOR ARCHITECTURAL SMELL DETECTION: A PRELIMINARY STUDY**

I. Pigazzini, D. Di Nucci, F. Arcelli Fontana, M. Belotti

48<sup>th</sup> Euromicro Conference Series on Software Engineering and Advanced Applications (Euromicro SEAA 2022)

Maspalomas, Spain, 2022, 8 pages, to appear

**[C12] A DELTA-DEBUGGING APPROACH TO ASSESSING THE RESILIENCE OF ACTOR PROGRAMS THROUGH RUN-TIME TEST PERTURBATIONS**

J. De Bleser, D. Di Nucci, C. De Roover

1<sup>st</sup> IEEE/ACM International Conference on Automation of Software Test (AST 2020)

Virtual (originally Seoul, South Korea), 2020, 10 pages, 21-30

**[C11] COMPARING HEURISTIC AND MACHINE LEARNING APPROACHES FOR METRIC-BASED CODE SMELL DETECTION**

F. Pecorelli, F. Palomba, D. Di Nucci, A. De Lucia

27<sup>th</sup> IEEE/ACM International Conference on Program Comprehension (ICPC 2019)

Montreal, Canada, 2019, 12 pages, 93-104

**[C10] CROSS-PROJECT JUST-IN-TIME BUG PREDICTION FOR MOBILE APPS: AN EMPIRICAL ASSESSMENT**

G. Catolino, D. Di Nucci, F. Ferrucci

6<sup>th</sup> IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft 2019)

Montreal, Canada, 2019, 12 pages, 99-110

**[C9] ASSESSING DIFFUSION AND PERCEPTION OF TEST SMELLS IN SCALA PROJECTS**

J. De Bleser, D. Di Nucci, C. De Roover

16<sup>th</sup> IEEE/ACM International Conference on Mining Software Repositories (MSR 2019)

Montreal, Canada, 2019, 11 pages, 457-467

**[C8] MINING SCALA FRAMEWORK EXTENSIONS FOR RECOMMENDATION PATTERNS**

Y. Pacheco, J. De Bleser, T. Molderez, D. Di Nucci, W. De Meuter, C. De Roover

26<sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018)

Hangzhou, China, 2019, 10 pages, 514-523

**[C7] DO DEVELOPERS UPDATE THIRD-PARTY LIBRARIES IN MOBILE APPS?**

P. Salza, F. Palomba, D. Di Nucci, C. D'Uva, A. De Lucia, F. Ferrucci

IEEE/ACM 26<sup>th</sup> International Conference on Program Comprehension (ICPC 2018)

Gothenburg, Sweden, 2018, 11 pages, 255-265

**[C6] SELF-REPORTED ACTIVITIES OF ANDROID DEVELOPERS**

L. Pascarella, F. Geiger, F. Palomba, D. Di Nucci, I. Malavolta, A. Bacchelli

5<sup>th</sup> IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft 2018)

Gothenburg, Sweden, 2018, 12 pages, 144-155

**[C5] DETECTING CODE SMELLS USING MACHINE LEARNING TECHNIQUES: ARE WE THERE YET?**

D. Di Nucci, F. Palomba, D. A. Tamburri, A. Serebrenik, A. De Lucia

25<sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018)

Campobasso, Italy, 2018, 10 pages, 612-621

**[C4] SOFTWARE-BASED ENERGY PROFILING OF ANDROID APPS: SIMPLE, EFFICIENT AND RELIABLE?**

D. Di Nucci, F. Palomba, A. Prota, A. Panichella, A. Zaidman, A. De Lucia

24<sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017)

Klagenfurt, Austria, 2017, 12 pages, 103-114

**[C3] SEARCH-BASED TESTING OF PROCEDURAL PROGRAMS: ITERATIVE SINGLE-TARGET OR MULTI-TARGET APPROACH?**

S. Scalabrino, G. Grano, D. Di Nucci, R. Oliveto, A. De Lucia

Symposium on Search-Based Software Engineering (SSBSE 2016)

Raleigh, NC, United States, 2016, 15 pages, 64-79

**[C2] ON THE ROLE OF DEVELOPER'S SCATTERED CHANGES IN BUG PREDICTION**

D. Di Nucci, F. Palomba, S. Siravo, G. Bavota, R. Oliveto, A. De Lucia

31<sup>st</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME 2015)

Bremen, Germany, 2015, 10 pages, 241-250

**[C1] HYPERVOLUME-BASED SEARCH FOR TEST CASE PRIORITIZATION**

D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia

Symposium on Search-Based Software Engineering (SSBSE 2015)

Bergamo, Italy, 2015, 15 pages, 157-172

## CONFERENCE PAPERS, TOOL DEMONSTRATIONS TRACK

### **[D8] DEFUSE: A DATA ANNOTATOR AND MODEL BUILDER FOR SOFTWARE DEFECT PREDICTION**

S. Dalla Palma, D. Di Nucci, D. A. Tamburri  
38<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME 2022)  
Limassol, Cyprus, 2022, 5 pages, to appear

### **[D7] REFACTORING ANDROID-SPECIFIC ENERGY SMELLS: A PLUGIN FOR ANDROID STUDIO**

E. Iannone, F. Pecorelli, D. Di Nucci, F. Palomba, A. De Lucia  
IEEE/ACM 28<sup>th</sup> International Conference on Program Comprehension (ICPC 2020)  
Virtual (originally Seoul, South Korea), 2020, 5 pages, 451-455

### **[D6] SOCRATES - SCALA RADAR FOR TEST SMELLS**

J. De Bleser, D. Di Nucci, C. De Roover  
10<sup>th</sup> ACM SIGPLAN Scala Symposium (SCALA 2019)  
London, United Kingdom, 2019, 5 pages, 22-26

### **[D5] OCELOT: A SEARCH-BASED TEST-DATA GENERATION TOOL FOR C**

S. Scalabrino, G. Grano, D. Di Nucci, M. Guerra, A. De Lucia, H. Gall, R. Oliveto  
33<sup>rd</sup> IEEE/ACM International Conference on Automated Software Engineering (ASE 2018)  
Montpellier, France, 2018, 4 pages, 868-871

### **[D4] A GRAPH-BASED DATASET OF COMMIT HISTORY OF REAL-WORLD ANDROID APPS**

F. Geiger, I. Malavolta, L. Pascarella, F. Palomba, D. Di Nucci, A. Bacchelli  
IEEE/ACM 15<sup>th</sup> International Conference on Mining Software Repositories (MSR 2018)  
Gothenburg, Sweden, 2018, 5 pages, 30-33

### **[D3] PETRA: A SOFTWARE-BASED TOOL FOR ESTIMATING THE ENERGY PROFILE OF ANDROID APPLICATIONS**

D. Di Nucci, F. Palomba, A. Prota, A. Panichella, A. Zaidman, A. De Lucia  
39<sup>th</sup> IEEE/ACM International Conference on Software Engineering (ICSE 2017)  
Buenos Aires, Argentina, 2017, 4 pages, 3-6

### **[D2] LIGHTWEIGHT DETECTION OF ANDROID-SPECIFIC CODE SMELLS: THE ADOCTOR PROJECT**

F. Palomba, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia  
24<sup>th</sup> IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017)  
Klagenfurt, Austria, 2017, 5 pages, 487-491

### **[D1] LANDFILL: AN OPEN DATASET OF CODE SMELLS WITH PUBLIC EVALUATION**

F. Palomba, D. Di Nucci, M. Tufano, G. Bavota, R. Oliveto, D. Poshyvanyk, A. De Lucia  
IEEE/ACM 12<sup>th</sup> Working Conference on Mining Software Repositories (MSR 2015)  
Florence, Italy, 2015, 4 pages, 482-485

## CONFERENCE PAPERS, MISCELLANEOUS TRACKS

### **[M8] MACHINE LEARNING-BASED TEST SMELL DETECTION**

V. Pontillo, D. Amoroso d'Aragona, F. Pecorelli, D. Di Nucci, F. Ferrucci and F. Palomba  
38<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME 2022)  
Registered Reports Track, Limassol, Cyprus, 2022, 8 pages, to appear

### **[M7] ON THE RELATION OF ARCHITECTURAL TO TEST SMELLS: A PRELIMINARY INVESTIGATION**

M. De Stefano, F. Pecorelli, D. Di Nucci, A. De Lucia  
22<sup>nd</sup> IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2022)  
New Ideas and Emerging Results Track, Limassol, Cyprus, 2022, 5 pages, to appear

### **[M6] TOWARD AUTOMATED EXPLOIT GENERATION FOR KNOWN VULNERABILITIES IN OPEN-SOURCE LIBRARIES**

E. Iannone, D. Di Nucci, A. Sabetta, A. De Lucia  
29<sup>th</sup> IEEE/ACM International Conference on Program Comprehension (ICPC 2021)  
Early Research Achievement Track, Virtual (originally Madrid, Spain), 2021, 5 pages, 396-400

**[M5] THE MAKING OF ACCESSIBLE ANDROID APPLICATIONS: AN EMPIRICAL STUDY ON THE STATE OF THE PRACTICE**

M. Di Gregorio, D. Di Nucci, F. Palomba, G. Vitiello  
36<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME 2020)  
Registered Reports Track, Virtual (originally Melbourne, Australia), 2020, 5 pages, 857-861

**[M4] COUNTERTERRORISM FOR CYBER-PHYSICAL SPACES: A COMPUTER VISION APPROACH**

G. Cascavilla, J. Slabber, F. Palomba, D. Di Nucci, D. A. Tamburri, W.J. van den Heuvel  
International Conference on Advanced Visual Interfaces (AVI 2020)  
Short Paper, Ischia, Italy, 2020, 5 pages, 1-5

**[M3] QUALITY MANAGEMENT OF INFRASTRUCTURE CODE IN SERVERLESS COMPUTING: THE RADON APPROACH**

S. Dalla Palma, M. Garriga, D. Di Nucci, D. A. Tamburri, W.J. van den Heuvel  
8<sup>th</sup> European Conference On Service-Oriented And Cloud Computing (ESOCC 2020)  
EU Projects Track, Virtual (originally Heraklion, Greece), 2020, 5 pages, to appear

**[M2] MINING PATTERNS IN SOURCE CODE USING TREE MINING ALGORITHMS**

H. Son Pham, S. Nijssen, K. Mens, D. Di Nucci, T. Molderez, C. De Roover, J. Fabry, V. Zaytsev.  
22<sup>nd</sup> International Conference on Discovery Science (DS 2019)  
Short Paper, Split, Croatia, 2019, 10 pages, 471-480

**[M1] METHODS AND TOOLS FOR FOCUSING AND PRIORITIZING THE TESTING EFFORT**

D. Di Nucci  
34<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME 2018)  
Doctoral Symposium Track, Madrid, Spain, 2018, 5 pages, 722-726

**PUBLISHED WORKSHOP PAPERS**

**[W10] TOWARDS QUANTUM-ALGORITHMS-AS-A-SERVICE**

M. De Stefano, D. Di Nucci, F. Palomba, D. Taibi, A. De Lucia  
1<sup>st</sup> International Workshop on Quantum Programming for Software Engineering (QP4SE 2022)  
Singapore, 2022, 4 pages, to appear.

**[W9] DEEPIAC: DEEP LEARNING-BASED LINGUISTIC ANTI-PATTERN DETECTION FOR IAC**

N. Borovits, I. Kumara, P. Krishnan, S. Dalla Palma, D. Di Nucci, F. Palomba, D. A. Tamburri, W.-J. van den Heuvel  
4<sup>th</sup> ACM SigSoft International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2020)  
Virtual (originally Sacramento, USA), 2020, 6 pages, 7-12

**[W8] SINGLING THE ODD ONES OUT: A NOVELTY DETECTION APPROACH TO FIND DEFECTS IN INFRASTRUCTURE-AS-CODE**

S. Dalla Palma, M. Mohammadi, D. Di Nucci, D. A. Tamburri  
4<sup>th</sup> ACM SigSoft International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2020)  
Virtual (originally Sacramento, USA), 2020, 6 pages, 31-36.

**[W7] ON THE ROLE OF DATA BALANCING FOR MACHINE LEARNING-BASED CODE SMELL DETECTION**

F. Pecorelli, D. Di Nucci, C. De Roover, A. De Lucia  
3<sup>rd</sup> ACM SigSoft International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2019)  
Tallinn, Estonia, 2019, 6 pages, 19-24

**[W6] A LANGUAGE-PARAMETRIC MODULAR FRAMEWORK FOR MINING IDIOMATIC CODE PATTERNS**

D. Di Nucci, H. Son Pham, J. Fabry, C. De Roover, K. Mens, T. Molderez, S. Nijssen and V. Zaytsev  
In Proceedings of the 12<sup>th</sup> Seminar Series on Advanced Techniques & Tools for Software Evolution (SATToSE 2019)  
Bolzano, Italy, 2019

**[W5] MINING EXTENSION POINT PATTERNS IN SCALA**

Y. Pacheco, J. De Bleser, T. Molderez, D. Di Nucci, W. De Meuter, C. De Roover  
17<sup>th</sup> Belgium-Netherlands Software Evolution Workshop (BENEVOL 2018)  
Delft, The Netherlands, 2018, 5 pages, 16-20



**[W4] OMNISCIENT DEVOPS ANALYTICS**

D. Tamburri, F. Palomba, D. Di Nucci, L. Di Giacomo

1<sup>st</sup> International Workshop on Software Engineering Aspects of Continuous Development and New Paradigms of Software Production and Deployment (DEVOPS 2018)

Chateau de Villebrumier, France, 2018, 12 pages, 48-59

**[W3] EVALUATING THE ADAPTIVE SELECTION OF CLASSIFIERS FOR CROSS-PROJECT BUG PREDICTION**

D. Di Nucci, F. Palomba, A. De Lucia

6<sup>th</sup> International Workshop on Realizing Artificial Intelligence Synergies in Software Engineering (RAISE 2018)

Gothenburg, Sweden, 2018, 7 pages, 48-54

**[W2] THE ROLE OF META-LEARNERS IN THE ADAPTIVE SELECTION OF CLASSIFIERS**

D. Di Nucci, A. De Lucia

2<sup>nd</sup> Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTesQuE 2018)

Campobasso, Italy, 2018, 6 pages, 7-12

**[W1] ON THE DIFFUSION OF TEST SMELLS IN AUTOMATICALLY GENERATED TEST CODE: AN EMPIRICAL STUDY**

F. Palomba, D. Di Nucci, A. Panichella, R. Oliveto, A. De Lucia

9<sup>th</sup> International Workshop on Search-Based Software Testing (SBST 2016)

Austin, TX, United States, 2016, 10 pages, 5-14

Fisciano (SA), July 4<sup>th</sup>, 2023