

Dario Di Nucci

Curriculum Vitae - Including Summary of Publications

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

His research focuses on empirical software engineering, particularly software maintenance, evolution, and testing. 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 also serves as editor for ACM Transactions on Software Engineering and Methodology, Elsevier Journal of Systems and Software, and Elsevier Science of Computer Programming, is a program committee member for international conferences, and referee for international journals in software engineering and artificial intelligence, for which he has received several Distinguished/Outstanding Reviewer Awards. He is a member of the IEEE Software Initiative team and the IEEE Conference Activities Committee.

LICENSES AND CERTIFICATIONS

- 2024** **ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 01/B1**
INFORMATICA - FASCIA I
Issued by Italian Ministry of University and Research (MUR) and valid from 19/11/2024 to 19/11/2035.
<https://asn23.cineca.it/pubblico/miur/esito-abilitato/01%252FB1/1/2>
The "ASN – Fascia I" is needed in Italy to apply for full professor positions in academic education.
The "01/B1" sector is related to Computer Science.
- 2023** **ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 09/H1**
SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI - FASCIA I
Issued by Italian Ministry of University and Research (MUR) and valid from 15/06/2023 to 15/06/2034.
<https://asn21.cineca.it/pubblico/miur/esito-abilitato/09%252FH1/1/5>
The "ASN – Fascia I" is needed in Italy to apply for full professor positions in academic education.
The "09/H1" sector is related to Computer Engineering.
- 2022** **BASIS KWALIFICATIE ONDERWIJS (BKO) - UNIVERSITY TEACHING QUALIFICATION (UTQ)**
Issued by Tilburg University
In the Netherlands, the BKO is proof of lecturers' didactic competence in academic education.
- 2020** **ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 01/B1**
INFORMATICA - FASCIA II
Issued by Italian Ministry of University and Research and valid from 23/11/2020 to 23/11/2030.
<https://asn18.cineca.it/pubblico/miur/esito-abilitato/01%252FB1/2/5>
The "ASN – Fascia II" is needed in Italy to be promoted as associate professors in academic education.
The "01/B1" sector is related to Computer Science.
- ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 09/H1**
SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI - FASCIA II
Issued by Italian Ministry of University and Research and valid from 13/11/2020 to 13/11/2030.
<https://asn18.cineca.it/pubblico/miur/esito-abilitato/09%252FH1/2/5>
The "ASN – Fascia II" is needed in Italy to be promoted as associate professors in academic education.
The "09/H1" sector is related to Computer Engineering.
- 2014** **ABILITAZIONE ALLA PROFESSIONE DI INGEGNERE**
Issued by University of Molise in December 2014

EMPLOYMENT HISTORY

12/2024 – CURRENT	ASSOCIATE PROFESSOR University of Salerno (UNISA), Italy <ul style="list-style-type: none">- Unit Leader of the MUR PRIN project RECHARGE- Principal Investigator of the MUR PRIN project SMARTITUDE Course Holder and Lecturer for several courses (see the Teaching section)
01/2022 – 12/2024	ASSISTANT PROFESSOR (I.E., RICERCATORE A TEMPO DETERMINATO DI TIPO B) University of Salerno (UNISA), Italy <ul style="list-style-type: none">- Unit Leader of the MUR PRIN project RECHARGE- Principal Investigator of the MUR PRIN project SMARTITUDE - Course Holder and Lecturer for several courses (see the Teaching section)
01/2020 - 12/2021	ASSISTANT PROFESSOR Jheronimus Academy of Data Science (JADS), Tilburg University, The Netherlands <ul style="list-style-type: none">- Work Package Leader of the EU Horizon 2020 project RADON (https://radon-h2020.eu/)- 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 <ul style="list-style-type: none">- Researcher in the FWO EOS project SECO-ASSIST (https://secoassist.github.io/)- Researcher in the Innoviris TeampUP project INTIMALS (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 UNISA, Italy Fully funded by UNISA. Advisor: Prof. Andrea De Lucia

EDUCATION

12/2014 - 03/2018	DOCTOR OF PHILOSOPHY (PH.D.) IN MANAGEMENT & INFORMATION TECHNOLOGY UNISA, Italy Fully funded by UNISA Dissertation: "Methods and Tools for Focusing and Prioritizing the Testing Effort" Advisor: Prof. Andrea De Lucia
06/2017	13TH INTERNATIONAL SUMMER SCHOOL ON SOFTWARE ENGINEERING (ISSSE) UNISA, Italy
03/2017 - 05/2017 05/2016 - 07/2016	VISITING STUDENT Delft University of Technology, The Netherlands Advisor: Prof. Andy Zaidman
06/2016	12TH INTERNATIONAL SUMMER SCHOOL ON SOFTWARE ENGINEERING (ISSSE) UNISA, 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 UNISA, 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

FUNDED RESEARCH PROJECTS

07/2024 - 11/2025	DEVELOPING A GENERATIVE AI-BASED CHATBOT FOR BLOCKCHAIN-BASED APPLICATION DEVELOPMENT Funder: Astrakode srl - Collaborazione Conto Terzi - Amount: 29,000€ - Role: Principal Investigator
11/2023 - 11/2025	RECHARGE: MONITORING, DETECTION, AND CHARACTERIZATION OF PERFORMANCE REGRESSIONS Funder: MUR - Progetti di Ricerca di Rilevante Interesse Nazionale - Bando 2022 PNRR - Amount: 83,199€ Role: Unit Leader - Additional Promoters: Vittorio Cortellessa (UNIVAQ), Rocco Oliveto (UNIMOL)
09/2023 - 09/2025	SMARTITUDE: AUTOMATED TESTING AND SECURITY ASSESSMENT OF SMART CONTRACTS Funder: MUR - Progetti di Ricerca di Rilevante Interesse Nazionale - Bando 2022 - Amount: 85,672€ Role: Principal Investigator - Additional Promoters: Carlos E. Budde (UNITN), Mariano Ceccato (UNIVR)

TEACHING

CURRENTLY TAUGHT COURSES

OBJECT ORIENTED PROGRAMMING (mandatory course of the bachelor's in Computer Science)

UNISA, taught with Prof. Vincenzo Deufemia, Fall 2024, Fall 2023, and Fall 2022

SOFTWARE DEPENDABILITY (mandatory course of the master's in Computer Science)

UNISA, Fall, 2024, Fall 2023, Spring 2023

UNISA, Spring 2022 (taught with Dr. Fabio Palomba)

SOFTWARE ENGINEERING FOR SECURE CLOUD SYSTEMS (mandatory course of the master's in IT Security and Cloud Technologies)

UNISA, Spring 2025 (taught with Dr. Gemma Catolino), Spring 2024 (taught with Prof. Carmine Gravino and Dr. Gemma Catolino)

FUNDING AND MANAGEMENT OF RESEARCH PROJECTS (course of the Ph.D. in Computer Science)

UNISA, Winter 2024

UNISA, Winter 2023 (taught with Prof. Andrea De Lucia)

PAST TAUGHT COURSES

EMPIRICAL RESEARCH METHODS (course of the Ph.D. in Computer Science)

UNISA, Summer 2023 (taught with Dr. Fabio Palomba)

SOFTWARE ENGINEERING, MANAGEMENT, AND EVOLUTION (mandatory course of the master's in Computer Science)

UNISA, course holder: Prof. Andrea De Lucia, Spring 2022

INTRODUCTION TO MACHINE LEARNING (mandatory course of the Pre-master's in Data Science and Entrepreneurship)
JADS, Spring 2021
JADS, course holder: Prof. Damian A. Tamburri, Spring 2020

DATA ENGINEERING (mandatory course of the master's in Data Science and Entrepreneurship)
JADS, course holder: Prof. Willem-Jan van den Heuvel, Fall 2021 and Fall 2020

DATA STATISTICS (mandatory course of the bachelor's in Data Science)
Tilburg University, The Netherlands, course holder: Prof. Maurits C. Kaptein, Fall 2019

CAPITA SELECTA OF SOFTWARE ENGINEERING (elective course of the master's in Computer Science)
VUB, course holder: Prof. Coen De Roover, annual course, 2019/2020 and 2018/2019

TEACHING ASSISTANT

SOFTWARE ENGINEERING, MANAGEMENT, AND EVOLUTION (mandatory course of the master's in Computer Science)
UNISA, course holder: Prof. Andrea De Lucia, Spring 2017 and Spring 2016

SOFTWARE ENGINEERING (mandatory course of the bachelor's in Computer Science)
UNISA, course holder: Prof. Andrea De Lucia, Fall 2016 and Fall 2015

WEB DEVELOPMENT (mandatory course in the bachelor's in Computer Science)
UNISA, Fall 2016

PROGRAMMING (mandatory course in the bachelor's in Computer Science)
UNISA, Fall 2016 (course holder: Dr. Riccardo Di Stasi)
UNISA, Fall 2015 (course holder: Prof. Enrico Fischetti)

SOFTWARE ENGINEERING: MAINTENANCE AND TESTING (mandatory course of the master's in Computer Science)
UNISA, course holder: Prof. Andrea De Lucia, Fall 2015

SUPERVISION

SUPERVISED PH.D. THESES

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|-------------|---|
| 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

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|-------------|---|
| 2024 | [MT22] JU2JMH: A CASE STUDY ON STEADY STATE REACHING
Ludovico Lerose - M.Sc. in Computer Science - UNISA |
| | [MT21] ENHANCING SECURITY FOR PHYSICAL ACCESS CONTROL: UTILIZING THE ITALIAN ELECTRONIC IDENTITY CARD AS A SECURE ACCESS TOKEN
Nthara Blessings - M.Sc. in Computer Science - UNISA |
| | [MT20] A SYSTEMATIC LITERATURE REVIEW ON TESTING APPLICATIONS IN THE CLOUD
Khan Areeb Ullah - M.Sc. in Computer Science - UNISA |

- 2023** **[MT19] INFRASTRUCTURE-AS-CODE DEFECT PREDICTION USING PROGRAM DEPENDENCE GRAPH METRICS**
Gerardo Iuliano - M.Sc. in Computer Science - UNISA
- [MT18] DEFECT PREDICTION IN TERRAFORM USING PRODUCT METRICS**
Gerardo Brescia - M.Sc. in Computer Science - UNISA
- 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

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

[BT10] IDENTIFICATION OF LINGUISTIC SMELLS IN INFRASTRUCTURE AS CODE

Daniò 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

EDITORIAL BOARD MEMBER OF INTERNATIONAL SCIENTIFIC JOURNALS

01/2024 – CURRENT

ACM Transactions on Software Engineering and Methodology (TOSEM) - Associate Editor

10/2023 – CURRENT	Elsevier Journal of Systems and Software (JSS) - Area Editor
03/2021 – 10/2023	Elsevier Journal of Systems and Software (JSS) - Editor
05/2021 – CURRENT	Elsevier Science of Computer Programming (SCICO) - Editor
05/2020 – CURRENT	IEEE Software Initiatives Team
05/2024	Guest Editor for Elsevier Information and Software Technology (IST) for the Special Section on "SEAA '23"
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
Information and Software Technology - Elsevier
Empirical Software Engineering - Springer
Journal of Software: Evolution and Process - Wiley
Science of Computer Programming - Elsevier
IEEE Access - IEEE
IET Software - Institution of Engineering and Technology
Software Quality Journal – Springer

ORGANIZATION OF SCIENTIFIC EVENTS

2025	FINANCE CHAIR 51 st Euromicro Conference on Software Engineering and Advanced Applications (Euromicro SEAA 2025) Salerno, Italy
2024	FINANCE CHAIR 28 th International Conference on Evaluation and Assessment in Software Engineering (EASE 2024) Salerno, Italy
	CHAIR 17 th International Summer School on Software Engineering (ISSSE) Salerno, Italy
2023	PROGRAM CHAIR 49 th Euromicro Conference on Software Engineering and Advanced Applications (Euromicro SEAA 2023) Durrës, Albania
	CHAIR 16 th International Summer School on Software Engineering (ISSSE) Salerno, Italy
	PROGRAM CHAIR 15 th Seminar on Advanced Techniques & Tools for Software Evolution (SATToSE 2023) Salerno, Italy
2021	ORGANIZER 20 th Belgium-Netherlands Software Evolution Workshop (BENEVOL) Virtual (originally 's-Hertogenbosch, The Netherlands)

TOOL DEMO CHAIR

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

2020**ORGANIZER**

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

PUBLICITY CHAIR

28th IEEE/ACM International Conference on Program Comprehension (ICPC)
Virtual (originally Seoul, South Korea)

2019**ORGANIZER**

18th Belgium-Netherlands Software Evolution Workshop (BENEVOL)
Brussels, Belgium

2017**SCIENTIFIC SECRETARIAT**

13th International Summer School on Software Engineering (ISSSE)
Salerno, Italy

2016**SCIENTIFIC SECRETARIAT**

12th International Summer School on Software Engineering (ISSSE)
Salerno, Italy

PROGRAM COMMITTEE MEMBER OF INTERNATIONAL CONFERENCES**2025**

41st IEEE International Conference on Software Maintenance and Evolution (ICSME)
Research Track

47th IEEE/ACM International Conference on Software Engineering (ICSE)
Software Engineering in Practice Track

22nd IEEE/ACM International Conference on Mining Software Repositories (MSR)
Technical Papers Track

33rd IEEE/ACM International Conference on Program Comprehension (ICPC)
Research Track

32nd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)
Research Track

33rd ACM Foundations of Software Engineering (FSE)
Research Track

2024

40th IEEE International Conference on Software Maintenance and Evolution (ICSME)
Research Track

46th IEEE/ACM International Conference on Software Engineering (ICSE)
Student Research Competition

21st IEEE/ACM International Conference on Mining Software Repositories (MSR)
Technical Papers Track

32nd IEEE/ACM International Conference on Program Comprehension (ICPC)
Research Track

31st IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)
Research Track

	32 nd ACM Foundations of Software Engineering (FSE) Research Track
2023	23 rd IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) Research Track, Artifact Evaluation Track
	23 rd International Conference on Product-Focused Software Process Improvement (PROFES) Research Track
	39 th IEEE International Conference on Software Maintenance and Evolution (ICSME) Research Track, New Ideas and Emerging Results Track, Tool Demo Track, Artifact Evaluation Track
	10 th European Conference on Service-Oriented and Cloud Computing (ESOCC) Research Track
	45 th IEEE/ACM International Conference on Software Engineering (ICSE) Software Engineering in Practice Track, Artifact Evaluation Track, Poster Track
	31 st IEEE/ACM International Conference on Program Comprehension (ICPC) Research Track
	20 th IEEE/ACM International Conference on Mining Software Repositories (MSR) Technical Papers Track
	30 th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track
2022	22 nd IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) Research Track, Artifact Evaluation Track
	38 th IEEE International Conference on Software Maintenance and Evolution (ICSME) Tool Demo Track, Artifact Evaluation Track
	44 th IEEE/ACM International Conference on Software Engineering (ICSE) Student Research Competition Track
	30 th IEEE/ACM International Conference on Program Comprehension (ICPC) Research Track
	9 th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) Technical Papers Track
	19 th IEEE/ACM International Conference on Mining Software Repositories (MSR) Technical Papers Track, Registered Report Track
	9 th European Conference on Service-Oriented and Cloud Computing (ESOCC) Project Track
	29 th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track
2021	21 st IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) Research Track, Artifact Evaluation Track
	37 th IEEE International Conference on Software Maintenance and Evolution (ICSME) Tool Demo Track, Artifact Evaluation Track

- 8th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft)
Technical Papers Track
- 28th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)
Research Track, Reproducibility Studies and Negative Results Track, Tool Demo Track
- 2020** 20th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM)
New Ideas and Emerging Results Track
- 28th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE)
Tool Demo Track
- 35th IEEE/ACM International Conference on Automated Software Engineering (ASE)
Late Breaking Results Track
- 46th Euromicro Conference on Software Engineering and Advanced Applications (SEAA)
Journal First Track
- 28th International Conference on Program Comprehension (ICPC)
Research Track
- 27th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)
Research Track, Journal First Track, Tool Demo Track
- 2019** 35th IEEE International Conference on Software Maintenance and Evolution (ICSME)
Tool Demo Track
- 27th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE)
Artifact Evaluation Track
- 6th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft)
Student Research Competition
- 2018** 34th IEEE International Conference on Software Maintenance and Evolution (ICSME)
Tool Demo Track
- 5th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft)
Student Research Competition

PROGRAM COMMITTEE MEMBER OF INTERNATIONAL WORKSHOPS

- 2023** 2nd International Workshop on Engineering Intelligent Applications' Code (ENIAC)
- 2nd International Workshop on the Foundations of Infrastructure Specification and Testing (FIST)
- 2022** 6th International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)
- 1st International Workshop on Quantum Programming for Software Engineering (QP4SE)
- 1st International Workshop on the Foundations of Infrastructure Specification and Testing (FIST)
- 2021** 5th International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)
- 4th International Workshop on Software Health (SoHeal)

2020	19 th Belgium-Netherlands Software Evolution Workshop (BENEVOL)
	4 th International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTaSQuE)
2019	2 nd International Workshop on Cloud-Native Applications Design and Experience (CNAX)
	3 rd International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTaSQuE)
2018	1 st International Workshop on Cloud-Native Applications Design and Experience (CNAX)
	2 nd Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTaSQuE)

REVIEWER FOR INTERNATIONAL CONFERENCES

2022	38 th IEEE International Conference on Software Maintenance and Evolution (ICSME) Research Track
	15 th Innovations in Software Engineering Conference (ISEC)
2021	29 th International Conference on Program Comprehension (ICPC) Research Track
2020	36 th IEEE International Conference on Software Maintenance and Evolution (ICSME) Research Track
	24 th International Conference on Evaluation and Assessment in Software Engineering (EASE) Research Track
2019	35 th IEEE International Conference on Software Maintenance and Evolution (ICSME) Research Track
	27 th International Conference on Program Comprehension (ICPC) Research Track
	16 th IEEE/ACM International Conference on Mining Software Repositories (MSR) Technical Papers Track
2018	34 th IEEE International Conference on Software Maintenance and Evolution (ICSME) Research Track
	25 th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track
2019	24 th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) Research Track
2017	19 th International Conference on Enterprise Information Systems (ICEIS)
2016	32 nd IEEE International Conference on Software Maintenance and Evolution (ICSME) New Ideas and Emerging Results Track
	24 th International Conference on Program Comprehension (ICPC) Research Track
	19 th International Conference on Business Information Systems (BIS)
	22 nd International Conference on Distributed Multimedia Systems (DMS)

- 18th International Conference on Enterprise Information Systems (ICEIS)
- 2015** 18th International Conference on Business Information Systems (BIS)
- 21st International Conference on Distributed Multimedia Systems (DMS)
- 17th International Conference on Enterprise Information Systems (ICEIS)

INVITED TALKS

- 2024** [T15] **ML-BASED DETECTION OF SECURITY FIXES IN OPEN-SOURCE REPOSITORIES**
Final Meeting of the Horizon Europe MSCA project ProSVED, University of Trento, Trento, Italy, June 14th, 2024
- [T14] **ADVANCEMENTS IN QUANTUM SOFTWARE ENGINEERING: CHALLENGES AND EMPIRICAL INSIGHTS**
PhD Course in Quantum Software Engineering, Politecnico di Milano, Milan, Italy, March 26th, 2024
- 2023** [T13] **THE QUANTUM FRONTIER OF SOFTWARE ENGINEERING AND ITS ADOPTION**
SWForum.eu: Workshop on Future Challenges in SE, Politecnico di Milano, Milan, Italy, June 27th, 2023
- [T12] **THE DO'S AND DON'TS OF INFRASTRUCTURE CODE: A SYSTEMATIC GREY LITERATURE REVIEW**
Dagstuhl Seminar 23082, Dagstuhl, Germany, February 21st, 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 25th, 2022
- 2021** [T10] **CODE SMELL DETECTION: THE ECSTASY OF MACHINE LEARNING**
Utrecht University, Utrecht, The Netherlands, October 6th, 2021
- [T9] **MACHINE LEARNING FOR SOFTWARE ENGINEERING: THE GOOD, THE BAD, AND THE UGLY**
University of Milano Bicocca, Virtual, July 7th, 2021
- [T8] **IMPROVING ENERGY EFFICIENCY OF MOBILE APPLICATIONS IN THE INTERNET OF THINGS**
Summer School on IoT at UNISA, Virtual, April 9th, 2021
- 2020** [T7] **MACHINE LEARNING FOR SOFTWARE ENGINEERING: THE GOOD, THE BAD, AND THE UGLY**
Eindhoven University of Technology, Virtual, December 10th, 2020
- [T6] **IMPROVING ENERGY EFFICIENCY OF MOBILE APPLICATIONS IN THE INTERNET OF THINGS**
Summer School on IoT at UNISA, Virtual, June 3rd, 2020
- [T5] **DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT**
UNISA, Virtual, March 25th, 2020
- 2019** [T4] **MINING SOURCE CODE^3: MINING IDIOMS, USAGES, AND EDITS**
FOSDEM, Brussels, Belgium, February 3rd, 2019
- 2018** [T3] **DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT**
JADS, 's-Hertogenbosch, The Netherlands, March 9th, 2018
- 2017** [T2] **DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT**
JADS, 's-Hertogenbosch, The Netherlands, December 5th, 2017
- [T1] **DIAGNOSE AND DETECT ENERGY FLAWS OF ANDROID APPS**
VUB, Brussels, Belgium. March 23rd, 2017

MEMBERSHIPS

- 04/2021 – CURRENT** **MEMBER-AT-LARGE OF THE IEEE CONFERENCE ACTIVITIES COMMITTEE (CAC)**
- 11/2020 – 12/2021** **CO-LEADER OF THE OASIS TOSCA EMERGING COMPUTE PLATFORMS AD-HOC (TOSCA-ECAH)**
- 01/2020 - 12/2021** **MEMBER OF THE OASIS TOSCA TECHNICAL COMMITTEE**

AWARDS

- 2024** **BEST REVIEWER AWARD 2023**
Journal of Systems and Software (JSS), Elsevier
- 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**
37th 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, JADS, The Netherlands
- CUSTOMER ANALYSIS AND A DESIGN OF A CROSS-DOMAIN PERSONALIZED RECOMMENDER SYSTEM FOR AUDAX GROEP**
Bethany Orense, JADS, The Netherlands

ACADEMIC RECORD

Journal Articles: 29
Conference Papers: 17 (main track), 8 (tool demonstration track), 10 (miscellaneous tracks)

Workshop Papers: 12

Citations: 2,666 on Google Scholar, h-index: 27, <https://scholar.google.it/citations?user=YJqcbnIAAAAJ>
1,666 on Elsevier Scopus, h-index: 24, <https://www.scopus.com/authid/detail.uri?authorId=57016777600>
1,201 on Clarivate Web of Science, h-index: 21, <https://www.webofscience.com/wos/author/record/833395>

JOURNAL PAPERS

[J29] REFORMULATING REGRESSION TEST SUITE OPTIMIZATION USING QUANTUM ANNEALING - AN EMPIRICAL STUDY

A. Trovato, M. De Stefano, F. Pecorelli, D. Di Nucci, A. De Lucia
Springer International Journal on Software Tools for Technology Transfer (STTT), 2024, to appear, 17 pages

[J28] ACCEPTANCE AND DEVELOPMENT OF QUANTUM COMPUTING IN THE NETHERLANDS AND GERMANY: BARRIERS AND REMEDIES FROM A MULTI-STAKEHOLDER PERSPECTIVE

J. Martens, I. Kumara; D. Di Nucci, F. Pecorelli, G. Monsieur, D. A. Tamburri, & W. J. Heuvel
IEEE Transactions on Engineering Management (TEM), 2024, to appear, 17 pages

[J27] DATA MESH: A SYSTEMATIC GRAY LITERATURE REVIEW

A. Goedegebuure, I. Kumara, S. Driessen, D. Di Nucci, G. Monsieur, W. J. Heuvel & D. A. Tamburri
ACM Computer Surveys (CSUR), 2024, Volume 57, Issue 1, 36 pages

[J26] THE QUANTUM FRONTIER OF SOFTWARE ENGINEERING: A SYSTEMATIC MAPPING STUDY

M. De Stefano, F. Pecorelli, D. Di Nucci, F. Palomba, A. De Lucia
Elsevier Information & Software Technology (IST), 2024, 19 pages

[J25] TECHNICAL DEBT IN AI-ENABLED SYSTEMS: ON THE PREVALENCE, SEVERITY, IMPACT, AND MANAGEMENT STRATEGIES FOR CODE AND ARCHITECTURE

G. Recupito, F. Pecorelli, G. Catolino, V. Lenarduzzi, D. Taibi, D. Di Nucci, F. Palomba
Elsevier Journal of Systems and Software (JSS), 2024, 33 pages

[J24] AN EMPIRICAL STUDY INTO THE EFFECTS OF TRANSPILATION ON QUANTUM CIRCUIT SMELLS

M. De Stefano, D. Di Nucci, F. Palomba, A. De Lucia
Springer Empirical Software Engineering (EMSE), 2024, Volume 29, Issue 61, 34 pages

[J23] AUTOMATED MAPPING OF VULNERABILITY ADVISORIES ONTO THEIR FIX COMMITS IN OPEN SOURCE REPOSITORIES

D. Hommersom, A. Sabetta, B. Coppola, D. Di Nucci, D. A. Tamburri,
ACM Transactions on Software Engineering and Methodology (TOSEM), 2024, Volume 33, Issue 5, 28 pages, 1-28

[J22] MACHINE LEARNING-BASED TEST SMELL DETECTION

V. Pontillo, D. Amoroso d'Aragona, F. Pecorelli, D. Di Nucci, F. Ferrucci, F. Palomba
Springer Empirical Software Engineering (EMSE), 2024, Volume 29, Issue 55, 44 pages

[J21] SOLAR: AUTOMATED TEST-SUITE GENERATION FOR SOLIDITY SMART CONTRACTS

S.W. Driessen, D. Di Nucci, D.A. Tamburri, W.-J. van den Heuvel
Elsevier Science of Computer Programming (SCICO), 2024, Volume 232, 5 pages

[J20] "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), 2024, Volume 36, Issue 4, 19 pages

[J19] BAYESIAN META-ANALYSIS OF SOFTWARE DEFECT PREDICTION WITH MACHINE LEARNING

M. Mohammadi, D. Di Nucci and D. A. Tamburri
IEEE Transactions on Industrial Cyber-Physical Systems (TICPS), 2023, Volume 1, 10 pages, 147-156

[J18] 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 227, 26 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 (INFOSOF), 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 (INFOSoft), 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

[C17] DATA QUALITY ASSESSMENT IN THE WILD: FINDINGS FROM GITHUB
I. Ustunboyacioglu, I. Kumara, D. Di Nucci, W.-J. van den Heuvel, D. A. Tamburri
28th International Conference on Evaluation and Assessment in Software Engineering (EASE 2024)
Salerno, Italy, 2024, 10 pages, 120-129

[C16] UNMASKING DATA SECRETS: AN EMPIRICAL INVESTIGATION INTO DATA SMELLS AND THEIR IMPACT ON DATA QUALITY
G. Recupito, R. Rapacciuolo, D. Di Nucci, F. Palomba
3rd International Conference on AI Engineering – Software Engineering for AI (CAIN 2024)
Lisbon, Portugal, 2024, 11 pages, 53-63

[C15] ARCHITECTURAL DESIGN DECISIONS FOR SELF-SERVE DATA PLATFORMS IN DATA MESHES
T. van Eijk, I. Kumara, D. Di Nucci, D. A. Tamburri, W.-J. van den Heuvel
21st IEEE International Conference on Software Architecture (ICSA 2024)
Hyderabad, India, 2024, 11 pages, 135-145

[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
48th Euromicro Conference on Software Engineering and Advanced Applications (SEAA 2022)
Maspalomas, Spain, 2022, 8 pages, 84-91

[C13] EXPLOITING DYNAMIC ANALYSIS FOR ARCHITECTURAL SMELL DETECTION: A PRELIMINARY STUDY
I. Pigazzini, D. Di Nucci, F. Arcelli Fontana, M. Belotti
48th Euromicro Conference Series on Software Engineering and Advanced Applications (SEAA 2022)
Maspalomas, Spain, 2022, 8 pages, 282-289

[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
1st 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
27th 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
6th 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
16th 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
26th 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 26th 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
5th 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
25th 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
24th 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
31st 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
38th IEEE International Conference on Software Maintenance and Evolution (ICSME 2022)
Limassol, Cyprus, 2022, 5 pages, 479-483

[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 28th 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
10th 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
33rd 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 15th 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
39th 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
24th 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 12th Working Conference on Mining Software Repositories (MSR 2015)
Florence, Italy, 2015, 4 pages, 482-485

CONFERENCE PAPERS, MISCELLANEOUS TRACKS

[M10] DO STATIC ANALYSIS TOOLS IMPROVE AWARENESS AND ATTITUDE TOWARD SECURE SOFTWARE DEVELOPMENT?

S. Nocera, S. Romano, D. Di Nucci, R. Francese, F. Palomba and G. Scanniello
17th International Conference on the Quality of Information and Communications Technology (QUATIC 2024)
Short Paper, Pisa, Italy, 2024, 9 pages, 399-407

[M9] INTEGRATING DATA QUALITY IN INDUSTRIAL BIG DATA ARCHITECTURES: AN ACTION DESIGN RESEARCH STUDY

I. Ustunboyacioglu, I. Kumara, D. Di Nucci, D. A. Tamburri and W.-J. van den Heuvel
18th European Conference on Software Architecture (ECSA 2024)
Industry Track, Luxembourg, Luxembourg, 2024, 17 pages, 3-19

[M8] DETECTING SECURITY FIXES IN OPEN-SOURCE REPOSITORIES USING STATIC CODE ANALYZERS

T. Fehrer, R. Cabrera Lozoya, A. Sabetta, D. Di Nucci, D. A. Tamburri
28th International Conference on Evaluation and Assessment in Software Engineering (EASE 2024)
Industry Track, Salerno, Italy, 2024, 4 pages, 429-432

[M7] DATA MESH ARCHITECTURE: FROM THEORY TO PRACTICE

I. Kumara, S. Driessen, T. van Eijk, D. Di Nucci, D. A. Tamburri, W.-J. van den Heuvel
21st IEEE International Conference on Software Architecture (ICSA 2024)
Tutorial, Hyderabad, India, 2024, 2 pages, 375-376

[M6] A PRELIMINARY EVALUATION ON THE RELATIONSHIP AMONG ARCHITECTURAL AND TEST SMELLS

M. De Stefano, F. Pecorelli, D. Di Nucci, A. De Lucia
22nd IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2022)
New Ideas and Emerging Results Track, Limassol, Cyprus, 2022, 5 pages, 66-70

[M5] TOWARD AUTOMATED EXPLOIT GENERATION FOR KNOWN VULNERABILITIES IN OPEN-SOURCE LIBRARIES

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

[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
8th European Conference On Service-Oriented And Cloud Computing (ESOCC 2020)
EU Projects Track, Virtual (originally Heraklion, Greece), 2020, 5 pages, 155-160

[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.
22nd 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

34th IEEE International Conference on Software Maintenance and Evolution (ICSME 2018)

Doctoral Symposium Track, Madrid, Spain, 2018, 5 pages, 722-726

PUBLISHED WORKSHOP PAPERS

[W13] USING LARGE LANGUAGE MODELS TO SUPPORT SOFTWARE ENGINEERING DOCUMENTATION IN WATERFALL LIFE CYCLES: ARE WE THERE YET?

A. Della Porta, V. De Martino, G. Recupito, C. Iemmino, G. Catolino, D. Di Nucci, F. Palomba

4th CINI National Lab AIIS Conference on Artificial Intelligence (Ital-IA 2024)

Naples, Italy, 2024, 6 pages, 42-47

[W12] TOWARD A SEARCH-BASED APPROACH TO SUPPORT THE DESIGN OF SECURITY TESTS FOR MALICIOUS NETWORK TRAFFIC

D. La Gamba, G. Iuliano, G. Recupito, G. Giordano, F. Ferrucci, D. Di Nucci, F. Palomba

1st Workshop on Security Testing for Complex Software Systems (SECUTE 2024)

Salerno, Italy, 2024, 5 pages, 624-628

[W11] PROJECTCODING - APPLIED GAME FOR LEARNING JAVA

G. Annunziata, S. Lambiase, A. Piro, D. Di Nucci, F. Ferrucci

1st Workshop on Artificial Intelligence with and for Learning Sciences: Past, Present, and Future Horizons (WAILS 2024)

Salerno, Italy, 2024, 3 pages, 21-23

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

M. De Stefano, D. Di Nucci, F. Palomba, D. Taibi, A. De Lucia

1st International Workshop on Quantum Programming for Software Engineering (QP4SE 2022)

Singapore, 2022, 4 pages, 7-10

[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

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[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

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

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

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[W5] MINING EXTENSION POINT PATTERNS IN SCALA

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[W4] OMNISCIENT DEVOPS ANALYTICS

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

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

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

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