

Dario Di Nucci – December 2020

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)	ADDRESS: Uilenburg 5E, 5211 EV 's-Hertogenbosch, The Netherlands PHONE: +39 333 34 03 254 E-MAIL: d.dinucci@uvt.nl WEBSITE: http://dardin88.github.io
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Dario Di Nucci is an assistant professor at the Jheronimus Academy of Data Science, a collaboration between Tilburg University and Eindhoven Technical University. He received the European Ph.D. degree in Management & Information Technology from the University of Salerno in 2018, advised by Prof. Andrea De Lucia with a thesis entitled "*Methods and Tools for Focusing and Prioritizing the Testing Effort*". His research is on *empirical software engineering*, in particular *software maintenance and evolution* and *software testing*. To this aim, he applies several techniques such as *machine learning*, *search-based algorithms*, and *mining* of software repositories. He serves and has served as a program committee member of various international conferences (e.g., ESEC/FSE, ASE, ICSME, SANER, ICPC), and as a referee for various international journals in the field of software engineering (e.g., TSE, TOSEM, EMSE, JSS) and artificial intelligence (e.g., TKDE, Neurocomputing).

EDUCATION

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

Dissertation titled "Applications of mathematical models to semantic research" promoted by professor Giovanni Capobianco

EMPLOYMENT HISTORY

01/2020 - ACTUAL

ASSISTANT PROFESSOR

Jheronimus Academy of Data Science, Tilburg University, The Netherlands

- Work Package Leader of EU Horizon 2020 project "*RADON: Unlocking the benefits of serverless FaaS*" (<https://radon-h2020.eu/>)
- MSc Thesis Coordinator
- Lecturer for Data Engineering (MSc in Data Science and Entrepreneurship)
- Course Coordinator for Intro to Machine Learning (Pre-MSc in Data Science and Entrepreneurship)
- Lecturer for Data Statistics (BSc in Data Science)

2018/01 – 2019/12

POST-DOCTORAL RESEARCHER

Vrije Universiteit Brussel, Belgium

- FWO EOS project "SECO-ASSIST: Automated Assistance for Developing Software in Ecosystems of the Future" (<https://secoassist.github.io/>)
- Innoviris TeampUP project "INTIMALS INTelligent Modernisation Assistance for Legacy Software" (<http://soft.vub.ac.be/intimals/>)
- Lecturer for "Capita Selecta of Software Engineering" (MSc in Computer Science)

2014/12 – 2018/03

PH.D. STUDENT IN MANAGEMENT & INFORMATION TECHNOLOGY

University of Salerno, Italy

Fully funded by University of Salerno. Advisor: Prof. Andrea De Lucia

TEACHING

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

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

DATA STATISTICS (mandatory course of the Bachelor in Data Science)
University of Tilburg, Eindhoven University of Technology, The Netherlands
Lecturer (course coordinator: 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 coordinator: Prof. Coen De Roover) - 2019-2020, 2018-2019 - annual course

SOFTWARE ENGINEERING, MANAGEMENT AND EVOLUTION (mandatory course of the Master's in Computer Science)
University of Salerno, Italy
Teaching assistant (course coordinator: Prof. Andrea De Lucia) - Spring 2017, Spring 2016

SOFTWARE ENGINEERING (mandatory course of the Bachelor in Computer Science)
University of Salerno, Italy
Teaching assistant (course coordinator: Prof. Andrea De Lucia) - Fall 2016, Fall 2015

WEB DEVELOPMENT (mandatory course in the Bachelor of Computer Science)
University of Salerno, Italy
Teaching assistant - Fall 2016

PROGRAMMING I (mandatory course in the Bachelor of Computer Science)
University of Salerno, Italy
Teaching assistant - Fall 2016 (course coordinator: Prof. Riccardo Di Stasi), Fall 2015 (course coordinator: Prof. Enrico Fischetti)

SOFTWARE ENGINEERING: MAINTENANCE AND TESTING (mandatory course of the Master's in Computer Science)
University of Salerno, Italy
Teaching assistant (course coordinator: Prof. Andrea De Lucia) - Fall 2015

SUPERVISION OF PH.D. THESES

2020 **[PT1] AN AUTOMATED DELTA-DEBUGGING APPROACH TO RESILIENCE TESTING OF ACTOR SYSTEMS THROUGH FAULT INJECTION**
Jonas De Bleser – Ph.D. in Computer Science – Promotor: Prof. Coen De Roover

SUPERVISION OF MASTER'S THESES

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

[MT7] MEASURING COMPETITIVENESS BASED ON INSTAGRAM FOLLOWER COMMUNICATION
Niels van Gorsel – M.Sc. in Data Science and Entrepreneurship – Promotor: Prof. Shantanu Mullick

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

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

2016

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

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

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

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

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

[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

[MT1] A COMBINED MODEL FOR THE PREDICTION OF DEFECTS

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

SUPERVISION OF BACHELOR THESES

2017

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

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

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

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

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

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

[BT6] DESIGN AND DEVELOPMENT OF A PLUGIN FOR THE DETECTION OF ENERGY DEFECTS OF MOBILE APPLICATIONS

Sara Zaino – B.Sc. in Computer Science – Promotor: Prof. Andrea De Lucia

[BT5] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL

Giuseppina Tufano – B.Sc. in Computer Science – Promotor: Prof. Andrea De Lucia

[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

[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

2016

[BT2] TRIO: A TOOL FOR REGRESSION TESTING OPTIMIZATION

Antonio Luca D'Avanzo – B.Sc. in Computer Science – Promotor: Prof. Andrea De Lucia

[BT1] DESIGN AND DEVELOPMENT OF A DEFECT PREDICTION TOOL

Fabiano Pecorelli – B.Sc. in Computer Science – Promotor: Prof. Andrea De Lucia

ACADEMIC RECORD

Journal Articles: 10

Conference Papers: 12 (main track), 7 (tool demonstration track), 5 (miscellaneous tracks)

Workshop Papers: 9

Citations: 579, h-index: 15, <https://scholar.google.it/citations?user=YJqcbnIAAAAJ>

1. JOURNAL PAPERS

[J10] M. Vandercammen, L. Christophe, D. Di Nucci, W. De Meuter, C. De Roover
Prioritising Server Side Reachability via Inter-process Concolic Testing
The Art, Science, and Engineering of Programming, 2021, Volume 5, Issue 2, Article 5, 34 pages.

[J9] S. Dalla Palma, D. Di Nucci, D. A. Tamburri
AnsibleMetrics: A Python library for measuring Infrastructure-as-Code blueprints in Ansible
SoftwareX, 2020, Volume 12, 6 pages, 1-6.

[J8] S. Dalla Palma, D. Di Nucci, F. Palomba, D. A. Tamburri
Toward a Catalog of Software Quality Metrics for Infrastructure Code
Elsevier Journal of Systems and Software (JSS), 2020, Volume 170, 8 pages, 1 - 8.

[J7] F. Pecorelli, D. Di Nucci, C. De Roover, A. De Lucia
A Large Empirical Assessment of the Role of Data Balancing in Machine-Learning-based Code Smell Detection
Elsevier Journal of Systems and Software (JSS), 2020, Volume 169, 16 pages, 1 - 16.

[J6] G. Grano, F. Palomba, D. Di Nucci, A. De Lucia, H. Gall
Scented Since the Beginning: On the Diffuseness of Test Smells in Automatically Generated Test Code
Elsevier Journal of Systems and Software (JSS), 2019, Volume 156, 16 pages, 312 - 327.

[J5] P. Salza, F. Palomba, D. Di Nucci, A. De Lucia, F. Ferrucci
Third-Party Libraries in Mobile Apps When, How, and Why Developers Update Them
Springer Empirical Software Engineering (EMSE), 2019, Volume 25, 37 pages, 2341 - 2377.

[J4] D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia
A Test Case Prioritization Genetic Algorithm guided by the Hypervolume Indicator
IEEE Transactions on Software Engineering (TSE), 2019, Volume 46, Issue 6, 674 - 696.

[J3] F. Palomba, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia
On the Impact of Code Smells on the Energy Consumption of Mobile Applications
Elsevier Information and Software Technology (INFOSOFTE), 2019, Volume 105, 13 pages, 43 - 55.

[J2] D. Di Nucci, F. Palomba, G. De Rosa, G. Bavota, R. Oliveto, A. De Lucia
A Developer Centered Bug Prediction Model
IEEE Transactions on Software Engineering (TSE), 2018, Volume 44 Issue 1, 21 pages, 5 - 24.

[J1] D. Di Nucci, F. Palomba, R. Oliveto, A. De Lucia
Dynamic Selection of Classifiers in Bug Prediction: an Adaptive Method
IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI), 2017, Volume 1, Issue 3, 11 pages, 202 - 212.

2. CONFERENCE PAPERS, MAIN TRACK (I.E., FORMALLY PUBLISHED IN INTERNATIONAL CONFERENCE PROCEEDINGS WITH PEER REVIEW)

[C12] J. De Bleser, D. Di Nucci, C. De Roover
A Delta-Debugging Approach to Assessing the Resilience of Actor Programs through Run-time Test Perturbations

In Proceedings of the 1st IEEE/ACM International Conference on Automation of Software Test (AST 2020), Virtual (originally Seoul, South Korea), 2020, 10 pages, 21-30.

[C11] F. Pecorelli, F. Palomba, D. Di Nucci, A. De Lucia
Comparing Heuristic and Machine Learning Approaches for Metric-Based Code Smell Detection
In Proceedings of the 27th IEEE/ACM International Conference on Program Comprehension (ICPC 2019), Montreal, Canada, 2019, 12 pages, 93 - 104.

[C10] G. Catolino, D. Di Nucci, F. Ferrucci
Cross-Project Just-in-Time Bug Prediction for Mobile Apps: An Empirical Assessment
In Proceedings of the 6th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft 2019), Montreal, Canada, 2019, 12 pages, 99 - 110.

[C9] J. De Bleser, D. Di Nucci, C. De Roover
Assessing Diffusion and Perception of Test Smells in Scala Projects
In Proceedings of the 16th IEEE/ACM International Conference on Mining Software Repositories (MSR 2019) – Montreal, Canada, 2019, 11 pages, 457 - 467.

[C8] Y. Pacheco, J. De Bleser, T. Molderez, D. Di Nucci, W. De Meuter, C. De Roover
Mining Scala Framework Extensions for Recommendation Patterns
In Proceedings of the 26th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Hangzhou, China, 2019, 10 pages, 514 - 523.

[C7] P. Salza, F. Palomba, D. Di Nucci, C. D'Uva, A. De Lucia, F. Ferrucci
Do Developers Update Third-Party Libraries in Mobile Apps?
In Proceedings of the IEEE/ACM 26th International Conference on Program Comprehension (ICPC 2018), Gothenburg, Sweden, 2018, 11 pages, 255 - 265.

[C6] L. Pascarella, F. Geiger, F. Palomba, D. Di Nucci, I. Malavolta, A. Bacchelli
Self-Reported Activities of Android Developers
In Proceedings of the 5th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft 2018), Gothenburg, Sweden, 2018, 12 pages, 144 - 155.

[C5] D. Di Nucci, F. Palomba, D. A. Tamburri, A. Serebrenik, A. De Lucia
Detecting Code Smells using Machine Learning Techniques: Are We There Yet?
In Proceedings of the 25th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2018), Campobasso, Italy, 2018, 10 pages, 612 - 621.

[C4] D. Di Nucci, F. Palomba, A. Prota, A. Panichella, A. Zaidman, A. De Lucia
Software-Based Energy Profiling of Android Apps: Simple, Efficient and Reliable?
In Proceedings of the 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017), Klagenfurt, Austria, 2017, 12 pages, 103-114

[C3] S. Scalabrino, G. Grano, D. Di Nucci, R. Oliveto, A. De Lucia
Search-based Testing of Procedural Programs: Iterative Single-Target or Multi-Target Approach?
In Proceedings of the Symposium on Search-Based Software Engineering (SSBSE 2016), Raleigh, NC, United States, 2016, 15 pages, 64 – 79

[C2] D. Di Nucci, F. Palomba, S. Siravo, G. Bavota, R. Oliveto, A. De Lucia
On the Role of Developer's Scattered Changes in Bug Prediction
In Proceedings of the 31st IEEE International Conference on Software Maintenance and Evolution (ICSME 2015) - Bremen, Germany, 2015, 10 pages, 241-250

[C1] D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia
Hypervolume-based Search for Test Case Prioritization
In Proceedings of the Symposium on Search-Based Software Engineering (SSBSE 2015) - Bergamo, Italy, 2015, 15 pages, 157-172

3. CONFERENCE PAPERS, TOOL DEMONSTRATIONS TRACK (I.E., FORMALLY PUBLISHED IN INTERNATIONAL CONFERENCE PROCEEDINGS WITH PEER REVIEW)

- [D7] E. Iannone, F. Pecorelli, D. Di Nucci, F. Palomba, A. De Lucia
Refactoring Android-specific Energy Smells: A Plugin for Android Studio
In Proceedings of the IEEE/ACM 28th International Conference on Program Comprehension (ICPC 2020), Virtual (originally Seoul, South Korea), 2020, 5 pages, 451-455.
- [D6] J. De Bleser, D. Di Nucci, C. De Roover
SoCRATES - Scala Radar for Test Smells
In Proceeding of the 10th ACM SIGPLAN Scala Symposium (SCALA 2019) - Tool Paper, London, United Kingdom, 2019, 5 pages, 22 - 26
- [D5] S. Scalabrino, G. Grano, D. Di Nucci, M. Guerra, A. De Lucia, H. Gall, R. Oliveto
OCELOT: a Search-Based Test-Data Generation Tool for C
In Proceeding of the 33rd IEEE/ACM International Conference on Automated Software Engineering (ASE 2018), Montpellier, France, 2018, 4 pages, 868 - 871.
- [D4] F. Geiger, I. Malavolta, L. Pascarella, F. Palomba, D. Di Nucci, A. Bacchelli
A Graph-based Dataset of Commit History of Real-World Android apps
In Proceedings of the IEEE/ACM 15th International Conference on Mining Software Repositories (MSR 2018), Gothenburg, Sweden, 2018, 5 pages, 30 - 33.
- [D3] D. Di Nucci, F. Palomba, A. Prota, A. Panichella, A. Zaidman, A. De Lucia
PETrA: a Software-Based Tool for Estimating the Energy Profile of Android Applications
In Proceedings of the 39th IEEE/ACM International Conference on Software Engineering (ICSE 2017) - Buenos Aires, Argentina, 2017, 4 pages, 3-6.
- [D2] F. Palomba, D. Di Nucci, A. Panichella, A. Zaidman, A. De Lucia
Lightweight Detection of Android-specific Code Smells: the aDoctor Project
In Proceedings of the 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2017) - Tool Track, Klagenfurt, Austria, 2017, 5 pages, 487-491
- [D1] F. Palomba, D. Di Nucci, M. Tufano, G. Bavota, R. Oliveto, D. Poshyanyk, A. De Lucia
Landfill: an Open Dataset of Code Smells with Public Evaluation
In Proceedings of the IEEE/ACM 12th Working Conference on Mining Software Repositories (MSR 2015) - Florence, Italy, 2015, 4 pages, 482-485

4. CONFERENCE PAPERS, MISCELLANEOUS TRACKS (I.E., FORMALLY PUBLISHED IN INTERNATIONAL CONFERENCE PROCEEDINGS WITH PEER REVIEW)

- [M5] M. Di Gregorio, D. Di Nucci, F. Palomba, G. Vitiello
The Making of Accessible Android Applications: An Empirical Study on the State of the Practice
In Proceedings of the 36th IEEE International Conference on Software Maintenance and Evolution (ICSME 2020), Virtual (originally Melbourne, Australia), 2020, 2 pages, 857-861.
- [M4] G. Cascavilla, J. Slabber, F. Palomba, D. Di Nucci, D. A. Tamburri, W.J. van den Heuvel
Counterterrorism for Cyber-Physical Spaces: A Computer Vision Approach
In Proceedings of the International Conference on Advanced Visual Interfaces (AVI 2020), Ischia, Italy, 2020, 5 pages, 1-5.
- [M3] S. Dalla Palma, M. Garriga, D. Di Nucci, D. A. Tamburri, W.J. van den Heuvel
Quality Management of Infrastructure Code in Serverless Computing: The RADON Approach
In Proceedings of the 8th European Conference On Service-Oriented And Cloud Computing (ESOCC 2020), Virtual (originally Heraklion, Greece), 2020, 5 pages, to appear.
- [M2] H. Son Pham, S. Nijssen, K. Mens, D. Di Nucci, T. Molderez, C. De Roover, J. Fabry, V. Zaytsev.
Mining Patterns in Source Code using Tree Mining Algorithms

In Proceedings of the 22nd International Conference on Discovery Science (DS 2019), Split, Croatia, 2019, 10 pages, 471-480.

[M1] D. Di Nucci

Methods and Tools for Focusing and Prioritizing the Testing Effort

In Proceeding of the 34th IEEE International Conference on Software Maintenance and Evolution (ICSME 2018) - Doctoral Symposium Track, Madrid, Spain, 2018, 5 pages, 722 - 726.

5. PUBLISHED WORKSHOP PAPERS (I.E., FORMALLY PUBLISHED IN INTERNATIONAL WORKSHOP PROCEEDINGS WITH PEER REVIEW)

[W9] N. Borovits, I. Kumara, P. Krishnan, S. Dalla Palma, D. Di Nucci, F. Palomba, D. A. Tamburri, W.J. van den Heuvel

DeeplaC: Deep Learning-based Linguistic Anti-Pattern Detection for IaC

In Proceeding of the 4th ACM SigSoft International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2020), Virtual (originally Sacramento, USA), 2020, 6 pages, 7-12.

[W8] S. Dalla Palma, M. Mohammadi, D. Di Nucci, D. A. Tamburri

Singling the Odd Ones Out: A Novelty Detection Approach to Find Defects in Infrastructure-as-Code

In Proceeding of the 4th ACM SigSoft International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2020), Virtual (originally Sacramento, USA), 2020, 6 pages, 31-36.

[W7] F. Pecorelli, D. Di Nucci, C. De Roover, A. De Lucia

On the Role of Data Balancing for Machine Learning-based Code Smell Detection

In Proceeding of the 3rd ACM SigSoft International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2019), Tallinn, Estonia, 2019, 6 pages, 19 - 24.

[W6] D. Di Nucci, H. Son Pham, J. Fabry, C. De Roover, K. Mens, T. Molderez, S. Nijssen and V. Zaytsev

A Language-Parametric Modular Framework for Mining Idiomatic Code Patterns

In Proceedings of the 12th Seminar Series on Advanced Techniques & Tools for Software Evolution (SATTOSE 2019), Bolzano, Italy, 2019

[W5] Y. Pacheco, J. De Bleser, T. Molderez, D. Di Nucci, W. De Meuter, C. De Roover

Mining Extension Point Patterns in Scala

In Proceedings of the 17th Belgium-Netherlands Software Evolution Workshop (BENEVOL 2018), Delft, The Netherlands, 2018, 5 pages, 16 - 20.

[W4] D. Tamburri, F. Palomba, D. Di Nucci, L. Di Giacomo

Omniscient DevOps Analytics

In Proceedings of the 1st 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] D. Di Nucci, F. Palomba, A. De Lucia

Evaluating the Adaptive Selection of Classifiers for Cross-Project Bug Prediction

In Proceedings of the 6th International Workshop on Realizing Artificial Intelligence Synergies in Software Engineering (RAISE 2018), Gothenburg, Sweden, 2018, 7 pages, 48 - 54.

[W2] D. Di Nucci, A. De Lucia

The Role of Meta-Learners in the Adaptive Selection of Classifiers

In Proceeding of the 2nd Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE 2018), Campobasso, Italy, 2018, 6 pages, 7 - 12.

[W1] F. Palomba, D. Di Nucci, A. Panichella, R. Oliveto, A. De Lucia

On the Diffusion of Test Smells in Automatically Generated Test Code: An Empirical Study

In Proceedings of the 9th International Workshop on Search-Based Software Testing (SBST 2016) - Austin, TX, United States, 2016, 10 pages, 5-14

INVITED TALKS

2020	[T6] IMPROVING ENERGY EFFICIENCY OF MOBILE APPLICATIONS IN THE INTERNET OF THINGS University of Salerno, Fisciano, Italy, June 3 rd , 2020
	[T5] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT University of Salerno, Fisciano, Italy, 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 Jheronimus Academy of Data Science, 's-Hertogenbosch, The Netherlands, March 9th, 2018
2017	[T2] DEFECT PREDICTION: USING MACHINE LEARNING FOR FOCUSING THE TESTING EFFORT Jheronimus Academy of Data Science, 's-Hertogenbosch, The Netherlands, December 5th, 2017
	[T1] DIAGNOSE AND DETECT ENERGY FLAWS OF ANDROID APPS Vrije Universiteit Brussel, Brussels, Belgium. March 23rd, 2017

SERVICE TO THE SCIENTIFIC COMMUNITY

ORGANIZATION OF EVENTS

2021	TOOL DEMO CO-CHAIR 29 th IEEE/ACM International Conference on Program Comprehension (ICPC), Virtual (originally Madrid, Spain)
2020	ORGANIZER 3 rd International Workshop on Software Health (SoHeal), Virtual (originally Seoul, South Korea)
	PUBLICITY CO-CHAIR 28 th IEEE/ACM International Conference on Program Comprehension (ICPC), Virtual (originally Seoul, South Korea)
	PROGRAM CHAIR 1 st Workshop on ENgineering Intelligent Applications' Code (ENIAC), Virtual (originally Porto, Portugal)
2019	ORGANIZER 18 th Belgium-Netherlands Software Evolution Workshop (BENEVOL), Brussels, Belgium
	COMMITTEE MEMBER 14 th International Summer School on Software Engineering (ISSSE), University of Salerno, Italy
2017	SCIENTIFIC SECRETARIAT 13 th International Summer School on Software Engineering (ISSSE), University of Salerno, Italy
2016	SCIENTIFIC SECRETARIAT 12 th International Summer School on Software Engineering (ISSSE), University of Salerno, Italy

PH.D. JURY COMMITTEE MEMBERSHIP

2020 **INVESTIGATING PERFORMANCE ISSUES IN MOBILE APPS**
Teerath Das. Gran Sasso Science Institute (IT)
promoted by Prof. Massimiliano Di Penta and Dr. Ivano Malavolta

PROGRAM COMMITTEE MEMBER OF INTERNATIONAL CONFERENCES

2021 28th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) - Research Track, Reproducibility Studies and Negative Results Track, Tool Demo Track

2020 19th Belgium-Netherlands Software Evolution Workshop (BENEVOL)

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 - 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) - Artefact Evaluation Track

6th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft) - Student Research Competition

5th International Conference on Advances and Trends in Software Engineering (SOFTENG)

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

2021 4th International Workshop on Software Health (SoHeal)

2020 19th Belgium-Netherlands Software Evolution Workshop (BENEVOL)

4th International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTesQuE)

2019 2nd International Workshop on Cloud-Native Applications Design and Experience (CNAX)

	3 rd International Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)
2018	1 st International Workshop on Cloud-Native Applications Design and Experience (CNAX)
	2 nd Workshop on Machine Learning Techniques for Software Quality Evaluation (MaLTeSQuE)
	10 th International Conference on Advances in System Testing and Validation Lifecycle (VALID)
2017	9 th International Conference on Advances in System Testing and Validation Lifecycle (VALID)

EDITORIAL BOARD MEMBER OF INTERNATIONAL JOURNALS AND BLOG

2020 - ACTUAL	Guest Editor for Science of Computer Programming (SCICO) for a Special Issue on "Software Health of Software Ecosystems"
2020 - ACTUAL	IEEE Software Initiatives Team
2019 - ACTUAL	IEEE Software Blog

REVIEWER

INTERNATIONAL JOURNALS	Advances in Software Engineering - Elsevier Applied Soft Computing - Elsevier Computational Intelligence - Wiley Empirical Software Engineering - Springer IEEE Access - IEEE IET Software - Institution of Engineering and Technology Information Processing Letters - Elsevier Journal of Software: Evolution and Process - Wiley Journal of Systems and Software - Elsevier Neurocomputing - Elsevier Science of Computer Programming - Elsevier Scientific Programming - Hidawi Software Quality Journal - Springer Transactions on Knowledge and Data Engineering - IEEE Transactions on Software Engineering - IEEE Transactions on Software Engineering and Methodology - ACM
INTERNATIONAL CONFERENCES	International Conference on Evaluation and Assessment in Software Engineering: 2020 IEEE International Conference on Software Analysis, Evolution, and Reengineering: 2017, 2018 IEEE International Conference on Program Comprehension: 2016, 2019 IEEE International Conference on Software Maintenance and Evolution: 2016 (New Ideas and Emerging Results Track), 2018, 2019, 2020 International Conference on Business Information Systems: 2015, 2016 International Conference on Distributed Multimedia Systems: 2015, 2016 International Conference on Enterprise Information Systems: 2015, 2016, 2017 International Conference on Mining Software Repositories: 2019

LICENSES AND CERTIFICATIONS

2020	ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 01/B1 – INFORMATICA - FASCIA II Issued by Italian Ministry of University and Research. Valid from 23/11/2020 to 23/11/2029
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2020	ABILITAZIONE SCIENTIFICA NAZIONALE - SETTORE CONCORSUALE 09/H1 - SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI - FASCIA II Issued by Italian Ministry of University and Research. Valid from 13/11/2020 to 13/11/2029
2014	ABILITAZIONE ALLA PROFESSIONE DI INGEGNERE Issued in December 2014

AWARDS

2020	BEST REVIEWER AWARD 2019 Journal of Systems and Software, Elsevier
2017	NSF TRAVEL SUPPORT Symposium on Search-Based Software Engineering (SSBSE), Raleigh, NC, United States
2015	ACM SIGSOFT STUDENT TRAVEL GRANT 37 th ACM/IEEE International Conference on Software Engineering (ICSE), Florence, Italy