PERSONAL INFORMATION	FRANCESCA SCOZZARI
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WORK EXPERIENCE

2015 - present	Associate Professor in Computer Science
	University of Chieti-Pescara (Italy)
	• Research Topics: static analysis of programs, development of tools for program correctness, formal methods, logic programming and constraints, eXplainable AI
2005 - 2015	Assistant Professor in Computer Science
	University of Chieti-Pescara (Italy)
2000 - 2005	Assistant Professor in Computer Science
	University of Pisa (Italy)
1999 - 2000	Assistant Professor in Computer Science
	École Polytechnique, Paris (France)

EDUCATION

1999	Ph.D. in Mathematical logic and theoretical computer science
	University of Siena (Italy)
1994	Master's degree in Computer Science
	University of Pisa (Italy)

PROJECTS (with leadership roles)

2024 – present	"SMARTK - Smart Knowledge: Enhancing Argumentation and Abstraction for Explanation and Analysis," funded through a cascade call of the Extended Partnership FAIR (Future Artificial Intelligence Research), under the theme "1. Artificial Intelligence: Foundational Aspects" (PNRR) – Co-Principal Investigator
2023 – present	INGENIUM Alliance of European Universities (European Union) – Local coordinator University of Chieti-Pescara for WP 3 Digital INGENIUM
2020 – 2023	Digital Infrastructure Enhancement Plan (MUR) - Coordinator
2022 – present	TALENTI - POT Economics, Management, and Tourism (MUR) – Local coordinator University of Chieti-Pescara

COMMUNITY SERVICE (with leadership roles)

PhD forum co-Chair	First Italian School on Geometric Deep Learning (2022)
Program Chair	• Program Chair of the ICTCS 2025 - Italian Conference on Theoretical Computer Science at the University of Chieti-Pescara • Program Chair of the 7th International Workshop on Numerical and Symbolic Abstract Domains (2017) at New York University (NY, USA).
Regular Reviewer	She has carried out review activities for many journals and conferences, including: Theoretical Computer Science, Formal Methods in System Design, Theory and Practice of Logic Programming; PeerJ Computer Science; International Journal of Computer Mathematics; The Journal of Systems & Software; Principles of Programming Languages (POPL), Symposium on Principles of Programming Languages; IEEE Symposium on Logic in Computer Science; IEEE International Conference on Computer Languages; International Static Analysis Symposium;

	International ACM Conference on Principles and Practice of Declarative Programming; International Symposium on Logic-based Program Synthesis and Transformation; International Symposium on Programming Languages, Implementations, Logics and Programs; International Conference on Integrated Formal Methods; Italian Conference on Theoretical Computer Science; International Symposium on Algorithms and Computation; International Conference on Logic Programming; Joint Conference on Declarative Programming; Numerical & Symbolic Abstract Domains; COMPSAC Doctoral Symposium.
Project Reviewer	• SIR (Scientific Independence of young Researchers) – Italian Ministry of Universities and Research • Expert Evaluator for Basic Research projects at the University of Verona.

EDITORIAL ACTIVITY

2018-present	Associate Editor - Frontiers in Computer Science

SOFTWARE DEVELOPMENT

2023-present	CONNECT - AI-powered tool that facilitates the formation of research teams for competitive funding applications https://gitlab.com/uda-connect
2022-present	JGMP - Java bindings for the GMP (GNU Multiple Precision Arithmetic Library) using JNA https://github.com/jandom-devel/JGMP
2020-present	ScalaFix Public - A Scala library for solving fixpoint equations https://github.com/jandom-devel/ScalaFix
2013-present	JANDOM (JVM-based Analyzer for Numerical Domains), a static program analyzer based on the abstract interpretation theory. JANDOM analyzes programs written in an imperative language, Java bytecode, and transition systems. It implements the interval domain, parallelotopes, and domains for sharing and linearity analysis. The analyzer is written in Scala. The software is available at github.com/jandom-devel/Jandom
2010-2012	RANDOM (R-based Analyzer for Numerical Domains), a static/dynamic program analyzer based on the abstract interpretation theory. RANDOM analyzes programs written in the R language and implements the interval domains, parallelotopes, template parallelotopes, and their combinations. RANDOM combines dynamic analysis with static analysis by using statistical techniques in the dynamic phase (Principal Component Analysis and Independent Component Analysis) and abstract interpretation in the static phase. The RANDOM tool was written in R and it is available at https://www.sci.unich.it/~amato/random/

PHD SUPERVISION

2011-2014	Simone Di Nardo Di Maio - University of Chieti-Pescara
2014-2018	Marco Rubino - University of Chieti-Pescara
2018-2021	Annamaria Porreca – University of Chieti-Pescara
2022-present	Ahmad Ijaz – “Leonardo da Vinci” University (Italy)

INSTITUTIONAL RESPONSABILITIES

2022-present	Rector Delegate to IT
2022-present	Coordinator of the Committee for Research Computing Infrastructures – University of Chieti-Pescara
2022-present	Director of CINI local unit (National Interuniversity Consortium for Informatics)

PUBBLICATIONS

Ahmad I., Amelio A., Gernsback D.H., Merla A., Scozzari F.
Interpretability of Machine Learning Models for Breast Cancer Identification: A Review
(2025) Smart Innovation, Systems and Technologies, 411 SIST, pp. 191 - 202
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Amato G., Scozzari F.
Optimal Matching for Sharing and Linearity Analysis
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DOI: 10.1017/S1471068424000152

Amato G., Amelio A., Caroprese L., Chiacchiaretta P., Fioravanti F., Ippoliti L., Meo M.C., Monaco G., Morbidoni C., Moscardelli L., Parton M., Scozzari F.
AI for Sustainability: Research at Ud'A Node
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Amato G., Scozzari F.
The ScalaFix Equation Solver
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Amato G., Scozzari F.
JGMP: Java bindings and wrappers for the GMP library
(2023) SoftwareX, 23, art. no. 101428
DOI: 10.1016/j.softx.2023.101428

Ahmad I., Amelio A., Merla A., Scozzari F.
A survey on the role of artificial intelligence in managing Long COVID
(2023) Frontiers in Artificial Intelligence, 6, art. no. 1292466
DOI: 10.3389/frai.2023.1292466

Amato G., Meo M.C., Scozzari F.
On the Need for a Common API for Abstract Domains of Object-Oriented Programs
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Amato G., Meo M.C., Scozzari F.
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Porreca A., Scozzari F., Di Nicola M.
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Porreca A., Cruz Rambaud S., Scozzari F., Di Nicola M.
A fuzzy approach for analysing equitable and sustainable well-being in Italian regions
(2019) International Journal of Public Health, 64 (6), pp. 935 - 942
DOI: 10.1007/s00038-019-01262-9
Amato G., Di Nardo Di Maio S., Meo M.C., Scozzari F.
Descending chains and narrowing on template abstract domains
(2018) Acta Informatica, 55 (6), pp. 521 - 545
DOI: 10.1007/s00236-016-0291-0

Amato G., Meo M.C., Scozzari F.
A taxonomy of program analyses
(2018) 19th Italian Conference on Theoretical Computer Science, ICTCS 2018, CEUR Workshop Proceedings, 2243, pp. 213 - 217

Scozzari F.
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(2018) Electronic Notes in Theoretical Computer Science, 334, pp. 1 - 2
DOI: 10.1016/j.entcs.2018.03.001

Amato G., Rubino M., Scozzari F.
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(2016) Science of Computer Programming, 120, pp. 1 - 24
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(2016) Electronic Notes in Theoretical Computer Science, 322, pp. 3 - 18
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(2014) Electronic Notes in Theoretical Computer Science, 307, pp. 3 - 15
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Amato G., Scozzari F.
Optimal multibinding unification for sharing and linearity analysis
(2014) Theory and Practice of Logic Programming, 14 (3), pp. 379 - 400
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Amato G., Scozzari F.
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Amato G., Parton M., Scozzari F.
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Amato G., Scozzari F.
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Amato G., Scozzari F.
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Amato G., Scozzari F.
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(2010) Theory and Practice of Logic Programming, 10 (1), pp. 49 - 112
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Giacobazzi R., Scozzari F.
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DOI: 10.1007/bfb0033844

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