PERSONAL INFORMATION

Antinisca Di Marco

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Sex | *Date of birth* | *Nationality*

Enterprise	University	EPR
☐ Management Level	☐ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
☐ Mid-Management Level	☒ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

EDUCATION AND TRAINING

Nov. 2002 t-June 2005 **Ph.D. in Computer Science and Application**
University of L'Aquila, L'Aquila, Italy.
Title of thesis: Performance Analysis of Software Architectures.
Advisor: Prof. Paola Inverardi

Nov. 1994 - July 2002 **Master Degree in Computer Science** earned with the maximum score and Summa cum Laude
University of L'Aquila, L'Aquila, Italy.
Title of thesis: Managing the Consistency of Complex Structured Documents.
Advisors: Prof. Paola Inverardi (University of L'Aquila) and Prof. Anthony Finkelstein (UCL, London, U.K.)

WORKING EXPERIENCE

Oct 2017 - present **Associate Professor in Computer Science**

University of L'Aquila, L'Aquila, Italy (www.univaq.it)
Business or sector Expert of Software and Performance Engineering, Data Science, Machine Learning Execution time, Bais & Fairness, Bioinformatics, eHealth Systems, Digital Twin.

March 2008 - Sept. 2018 **Assistant Professor in Computer Science**

University of L'Aquila, L'Aquila, Italy (www.univaq.it)

Business or sector Expert of Software and Performance Engineering, Context-awareness, Adaptive systems, Bioinformatics and eHealth Systems.

Sept. 2006 - March 2007 **Post-Doc Fellow**
Computer Science Department, University of L'Aquila (Italy).
Business or sector Expert of Software and Performance Engineering, Context-awareness, Software Modeling.

Sept. 2005 - Apr. 2006 **Post-Doc Fellow**
Computer Science Department, University of Rome TorVergata, Rome (Italy).

Business or sector Expert of Software and Performance Engineering, Context-awareness, Software Modeling.

December 2003 **Research Fellow**
Computer Science Department, University of L'Aquila (Italy), working on Dynamic reconfiguration of software systems in order to guarantee a good level of their performance indices.

March 2002 - Jun 2002 **Post-Doc Fellow**
Computer Science Department, University of L'Aquila (Italy).
Business or sector Expert of Software and Performance Engineering, Software Modeling.

11 October 2001 – 10 December 2001 **Research Fellow**
Computer Science Department, University of L'Aquila (Italy), working on Quantitative Analysis of Software Architecture.

ABILITATION

06.02.2023 National Scientific Qualification (ASN) for the functions of university full professor in Computer Science (01/B1 competition sector) - https://asn21.cineca.it/pubblico/miur/esito-abilitato/01%252FB1/1/4

VISITING RESEARCHER AND STUDENT

May 2012 **Visiting Researcher**

Lane Department of Computer Science, College of Engineering and Mineral Resources, West Virginia University, West Virginia, USA

Topic of the research: Software performance engineering of complex systems.

Advisor: Prof. Bojan Cukic

Business or sector Expert of Software and Performance Engineering, Context-awareness, Software Modeling.

March 2005 - Aug. 2005 **Research Fellow**
Computer Science Department, University College London, London, U.K.
Topic of the research: performance analysis of mobile systems

Advisors: Prof. Wolfgang Emmerich and Prof. Cecilia Mascolo

Business or sector Expert of Software and Performance Engineering, Context-awareness, Software Modeling.

September 2000 June 2001 **ERASMUS Student**

Computer Science Department, University College London, London, U.K.
She developed her master thesis (Title of thesis: Managing the Consistency of Complex Structured Documents.) under the supervision of Prof. Anthony Finkelstein and Prof. Paola Inverardi

RESEARCH INTERESTS

Software Engineering, Software Performance Engineering, Software Quality (since 2002).

Open data science, FAIR principles, machine learning (since 2018)

Trustworthy Machine Learning and quality AI, Digital Twin (since 2020)

Bioinformatics and eHeath systems. Analysis of medical data (since 2012)

SIGNIFICANT BREAKS

2006 maternity : in November her first daughter was born.

2009 earthquake in L'Aquila: she was forced to move from L'Aquila for 9 months, from April to December 2009.

2012 maternity : in November her second daughter was born

RESEARCH

CONFERENCE AND WORKSHOP ORGANIZATION

General Co-Chair	10th International Conference on Performance Engineering (ICPE 2019), Mumbai, India (https://icpe2019.spec.org/organizing-committee.html)
Program Co-Chair	14th International Conference on Performance Engineering (ICPE 2023), Coimbra, Portugal (https://icpe2023.spec.org/organizing-committee/)
	14th European Performance Engineering Workshop (EPEW2017), Berlin, Germany (http://events.disim.univaq.it/~epew2017/)
	Italian Student Contest on Software Engineering (SCORE-it) at the 37th International Conference on Software Engineering (ICSE2015), Florence, Italy (http://2015.icseconferences.org/icse2015J/team/organizing-committee)
Workshop (Selection) Chair	20th IEEE Int. Conference on Pervasive Computing and Communication (PERCOM2022), Pisa, Italy (https://percom.org/PerCom2022/organizing-committee/)
Demo Chair	18th IEEE Int. Conference on Pervasive Computing and Communication (PERCOM2020), Austin, Texas (http://percom.uta.edu/Previous/ST2020/organizing-committee.html)
PhD Forum Chair	19th IEEE Int. Conference on Pervasive Computing and Communication (PERCOM 2021), Kassel, Germany (http://percom.uta.edu/organizing_commitee)
Demo Award Committee Member	20th IEEE Int. Conference on Pervasive Computing and Communication (PERCOM 2022), Pisa, Italy
Local Organization Chair	8th International Conference on Performance Engineering (ICPE 2017), L'Aquila, Italy (https://icpe2017.spec.org/organizing-committee.html)
Local Organizing Committee Member	4TH ITALIAN CONFERENCE ON ICT FOR SMART CITIES AND COMMUNITIES (iCities 2018), L'Aquila, Italy (http://icities2018.disim.univaq.it/committee.html).
	23rd IEEE/ACM International Conference on Automated Software Engineering (ASE) 2008, L'Aquila, Italy
Workshop and Hackathon Organizing Committee Chair	1st CINI InfoLife Laboratory Workshop (INFOLIFE2017), Venice, Italy (http://infolife.dais.unive.it/)
	4th International Workshop on Principles of Engineering Service-Oriented Systems (PESOS2012), Barcelon, Spain (https://dl.acm.org/doi/10.1145/2382756.2382764)
	1st International Workshop on Automated engineeRing of Autonomous and run-tiMe evolvIng Systems (ARAMIS 2008), L'Aquila, Italy (http://events.disim.univaq.it/ase2008/workshops.php)

HACK@EO L'Aquila 2021 – City Sustainability Indices for Citizens, Hackathon del ProgettoTerritori Aperti e di Open Search Tech in collaborazione con ESA (European Space Agency), AIxIA (Associazione Italiana per l'Intelligenza Artificiale) e GMatics (https://territoriaperti.univaq.it/hackeo-laquila-2021-city-sustainability-indices-for-citizens/)

Steering Committee Member

ACM/SPEC International Conference on Performance Engineering – Adjunct member for Years: 2018-2019-2020 and 2022-2023-2024

SCIENTIFIC PROGRAM COMMITTEE

Main Conferences

IEEE International Conference on Pervasive computing and communications (PerCom 2017, 2018, 2019, 2020, 2021,2022,2024)

ACM/SPEC International Conference on Performance Engineering (ICPE 2017, 2020, 2021, 2022 and 2024)

Tools and Demos track of the 17th European Conference on Software Architecture (ECSA2023)

26th International Conference on Fundamental Approaches to Software Engineering (FASE2023)

22nd International Conference on Perspectives in Business Informatics Research (BIR 2023)

European Conference on Modelling and Simulation (ECMS 2016, 2018-TODAY)

3rd International Conference on Artificial Intelligence and Machine Learning (CAIML2022)

44th IEEE International Conference on Software Engineering (ICSE 2022) - Software Engineering in Practice (SEIP track)

International Conference on Software Engineering (ICSE 2019) - Poster Track

International Conference on Software Engineering (ICSE 2018) - Demo Track

2nd IEEE International Conference on Software Architecture (ICSA2018)

International Conference on the Quality of Software Architectures (2009, 2010, 2011, 2012, 2013, 2014, 2015).

Workshop and minor events

1st International Workshop on Quality in Software Architecture - co-located with ECSA 2023

International Workshop on Automated and verifiable Software sYstem DEvelopment (ASYDE 2019-today)

International Workshop on Model-Driven Engineering for Software Architecture (MDE4SA 2020,2021)

Future@STAF 2020 Future of Modeling

womENcourage - ACM-W Europe Celebration of Women in Computing (2016,2018, 2019,2023)

International Workshop on domAin specific Model-based AppRoach to vErificaTion and validation (AMARETTO 2017)

International Workshop on Formal Engineering approaches to Software Components and Architectures (FESCA 2014, 2015, 2016, 2017)

Wireless Sensor Networks Symposium - International Wireless Communications and Mobile Computing Conference (2013-2014)

International Workshop on Engineering Energy Efficient WSNs (EEEW 2014 and 2015)

International Workshop on Principles of Engineering Service-Oriented Systems (PESOS 2013, 2014, 2015)

European Performance Engineering Workshop (EPEW 2012)

Workshop on Research and Use of Multiformalism Modeling Methods (WRUMMM 2012, 2014)

The Seventh International Conference on Software Engineering Advances (ICSEA 2012, 2015)

4th International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL 2011);

13th European Workshop on Dependable Computing (EWDC 2011)

Special Session on "Quality and Service-Oriented Applications" of Euromicro Conference on Software Engineering and Advanced Applications (SEAA) 2008, 2009, 2010.

International Conference on Digital Telecommunications (ICDT2009, 2010)

International Conference on Intensive Applications and Services (INTENSIVE 2009, 2010).

International Conference on Global Defense and Business Continuity, ICGD&BC 2007

JOURNAL EDITORIAL BOARD AND REVIEW SERVICE

Editorial Board

Review Board of IEEE Transaction of Software Engineering Journal (18 September 2018 – present)
Editorial Board Member of International journal on Modelling. Publisher: MDPI (18 April 2020-present).

Editor of Conference Proceedings

Marco Vieira, Valeria Cardellini, Antinisca Di Marco, Petr Tuma: Proceedings of the 2023 ACM/SPEC International Conference on Performance Engineering, ICPE 2023, Coimbra, Portugal, April 15-19, 2023. ACM 2023

Marco Vieira, Valeria Cardellini, Antinisca Di Marco, Petr Tuma: Companion of the 2023 ACM/SPEC International Conference on Performance Engineering, ICPE 2023, Coimbra, Portugal, April 15-19, 2023. ACM 2023

Varsha Apte, Antinisca Di Marco, Marin Litoiu, José Merseguer: Proceedings of the 2019 ACM/SPEC International Conference on Performance Engineering, ICPE2019, Mumbai, India, April 7-11, 2019. ACM 2019, ISBN 978-1-4503-6239-9

Varsha Apte, Antinisca Di Marco, Marin Litoiu, José Merseguer: Companion of the 2019 ACM/SPEC International Conference on Performance Engineering, ICPE 2019, Mumbai, India, April 07-11, 2019. ACM 2019, ISBN 978-1-4503-6286-3

Philipp Reinecke, Antinisca Di Marco: Computer Performance Engineering - 14th European Workshop, EPEW 2017, Berlin, Germany, September 7-8, 2017, Proceedings. Lecture Notes in Computer Science 10497, Springer 2017, ISBN 978-3-319-66582-5

Journal Committee

Member of the SIGSOFT EDI Subcommittee to create a Code of Conduct for SIGSOFT events.(January 2020 - march 2020)

Journal Reviewer

PEER REVIEWER of more than 30 International Journals. The most relevant ones are:
IEEE Transactions on Software Engineering
IEEE Internet Computing
Elsevier Journal of Systems and Software
ACM Computer Survey
ACM Transactions on Autonomous and Adaptive Systems
Springer Journal of Software and Systems Modeling
Science of Computer Programming, Elsevier
Journal of Pervasive and Mobile Computing, Elsevier

TUTORIAL AND INVITED SPEAKER

Tutorial

Berardinelli L., Cortellessa V., Di Marco A., Transformations from software models to quality models: mechanisms, approaches, technologies, tools, Tutorial Lecture, The Seventh International Workshop on Software and Performance (WOSP 2008) Princeton, NJ, USA, June 23-26, 2008.

Vittorio Cortellessa, Antinisca Di Marco, Paola Inverardi. Transformations of software models into performance models. Tutorial Lecture at ICSE 2005

Cortellessa V., Di Marco A., Inverardi P., Software model to performance model transformations, QEST 2004 Tutorial Lecture, Enschede, The Netherlands, September 2004
“Medicina digitale e territorio: come i sistemi software supportano la gestione sanitaria”. Antinisca Di Marco. Medicina digitale: dalle base teoriche e tecnologiche alla realtà clinica e normativa. L’Aquila, 18-19 Nov 2022.

Invited Speaker and Keynote

“Responsible Training in Data Science: stimulating diversity and inclusion”. Antinisca Di Marco, Laura Tarantino e Giovanni Stilo. Gender Equality and Artificial Intelligence 2022, 21 22 November 2022, L’Aquila Italy

"How data and data science can help to deal with natural disaster?" Antinisca Di Marco. IoT for emergency management Workshop (IoT4Emergency), Malmo University, Malmo, Sweden, October 6-9,2020.

"Monitoraggio telematico in psichiatria: nuove tecnologie". Antinisca Di Marco. XII Congress Nazionale della Società Italiana di Psicopatologia. Febbraio, 2018, Roma.

"Nuove tendenze in Bioinformatica relativamente all’analisi in-silico delle malattie tumorali" Antinisca Di Marco. 17° Congresso Nazionale ASSOCIAZIONE ITALIANA DI TELEMEDICINA ED INFORMATICA MEDICA - L'Aquila, Novembre 2017.

FRIENDLY & KIND con la tua Salute: Sistemi dinamici esperti, intuitivi e non invasivi, per il dominio eHealth". Antinisca Di Marco. Festival dell’Innovazione in Sanita' Pubblica. Ottobre 2017,Pisa, Italy.

"Scienza della Vita e Scienza dell’Informazione: un duo imprescindibile nel terzo millennio". Antinisca Di Marco. EDU Day 2017. L'Aquila.

"DevOps and WSN App: a Bio-Inspired Paradigm" A. Di Marco. Keynote at QUDOS (Quality Aware DevOps) Workshop of ICPE2017, L'Aquila, April 2017.

"A bioinformatic approach to predict the Influence of multiple conjoint mirnAs on caNcer diseAse: the DIANA project", Bioinformatics Day @ DAIS, Venice, Italy, July 2016.

"The Role of Context in Extra-functional Verification and Validation", International Workshop on domAin specific Model-based AppRoaches to vErificaTion and validaTiOn (AMARETTO 2016), Rome, Italy, February 2016.

Antinisca Di Marco, Stefano Pace, Stefano Marchesani, Luigi Pomante: Model-driven agent generation approach for adaptable and resource-aware sensor node. SESENA 2012 Workshop of ICSE2012.

“Run-time Performance Management of the Siena Publish/Subscribe Middleware”, M. Caporuscio, Antinisca Di Marco, Paola Inverardi. Secondo Workshop Italiano in Ingegneria del Software, Bolzano, 26-27 settembre 2005

PhD. School

Vittorio Cortellessa, Antinisca Di Marco, Catia Trubiani. Software Performance Antipatterns: Modeling and Analysis. 12th International School on Formal Methods for the Design of Computer, Communication and Software Systems: Model-Driven Engineering. LNCS 7320. Bertinoro, Italy. June 2012

Panelist

Moderator and speaker of the Panel "Il Cloud sovrano - Sviluppo del digitale e riservatezza dei dati di cittadini e imprese", 13 July 2021, Canova Digitale online event. (https://www.canova.club/Home- Page/Il-Cloud-Sovrano-Sviluppo-del-digitale-e-riservatezza-dei-dati-di-cittadini-e-imprese)

Invited Seminars

"Il Cloud nella Bioinformatica. Bioinformatics approach to predict target genes for dysregulated microRNAs" 27 Feb. 2017. Webinar CRUI (Conferenza dei Rettori Universitari Italiani).

"A Software Performance Engineering Approach", Antinisca Di Marco, April 2005, Computer Science Department, University College London, London, U.K.

NATIONAL AND INTERNATIONAL AWARDS AND RECOGNITIONS FOR RESEARCH ACTIVITIES

Awards for scientific paper

Best Paper Award: EASST Award to Performance modeling and analysis of context-aware mobile software systems. Luca Berardinelli, Vittorio Cortellessa, Antinisca Di Marco. Fundamental Approaches to Software Engineering. ETAPS 2010. Paphos, Cyprus, 20 - 28 March, 2010.

Best Poster Award: Learning from the Cell Life-Cycle: A Self-adaptive Paradigm, Antinisca Di Marco, Francesco Gallo, Paola Inverardi and Rodolfo Ippoliti, in: ECSA, pages 485-488, 2010

Fast Breaking Paper: in March 2006 Thomson-Scientific Essential Science Indicators indicate the journal paper: Model-Based Performance Prediction in Software Development: A Survey (2004), Simonetta Balsamo, Antinisca Di Marco, Paola Inverardi and Marta Simeoni, in: IEEE Trans. Software Eng., 30:5(295-310) as one of the most cited in the field of Computer Science.

Best Paper Candidate: Definition of an enriched GIS network for evacuation planning. Evans Etrue Howard, Lorenza Pasquini, Claudio Arbib, Antinisca Di Marco e Eliseo Clementini. 7th International Conference on Geographical Information Systems Theory, Applications and Management, GISTAM 2021.

Acknowledgments for review activities

Reviewer recognition from the Elsevier Journal of Software and Systems Modeling (SOSyM). The Editors in chief issued a certificate to express their appreciation for the contributions as a SoSyM Reviewer in 2018 dal 01-01-2018 al 31-12-2018

Certification of Appreciation as ICSE 2015 Organizing Committee Member from IEEE CS TCSE Chair, ACM SigSoft Chair and ICSE 2015 General Chair.

Certification of Appreciation from the PERCOM 2022 General Chair for the outstanding service as the Workshop Chair.

ACM recognition award in appreciation for contributions to ICPE2019.

Grants for scientific recognition obtained from competitive calls

Azure Microsoft Research Award May 2016 for the DIANA project ($20.000 for MS Azure use).

EUR 12.000 grant from the University of L'Aquila for the PERFCycle project.

PARTICIPATION IN CONFERENCES AS

SPEAKER

ITADATA2022: Bianchi, Andrea; d'Aloisio, Giordano; D'Angelo, Andrea; Di Marco, Antinisca; Di Matteo, Alessandro; Leone, Jessica; Scoccia, Giulia; Stilo, Giovanni; Traini, Luca; DIORAMA: Digital twIn fOR sustAinable territorial Management. The 1st Italian Conference on Big Data and Data Science, September 20-21 2022,Milan, Italy

MODELSWARD 2017: F. Aielli, D. Cassioli, S. Curini, Antinisca Di Marco, S. Pace. iCARE: MobIle health-Care system for monitoring toxicity and symptoms in cAncer patients Receiving disease oriented therapy Eupean Project Space, MODELSWARD 2017, Porto, Portugal, 19-21 Feb. 2017

i-Cities 2015: D. Cassioli, Antinisca Di Marco, S. Pace, F. Aielli. i-CARE: Mobile health-care system to monitor toxicity and symptoms in cancer patients under disease-oriented therapy. CINI Annual Workshop on ICT for Smart Cities & Communities, Oct. 2015, Palermo, Italy

i-Cities 2015: S. Pace, Antinisca Di Marco, D. Cassioli, V. Santi, C. Pajewski. iTour: An interpreter for thematic virtual tours. CINI Annual Workshop on ICT for Smart Cities & Communities, Oct. 2015, Palermo, Italy.

SENSoRNETS2015: D. Cassioli, A. Di Marco, L. Pomante, C. Rinaldi, S. Pace, F. Gallo. VISION: Video-oriented UWB-based Intelligent Ubiquitous Sensing - Demo of the Video-oriented Intelligent Sensing. In: International Conference on Sensor Networks (SENSoRNETS2015), Angers, Loire Valley, France, 11-13 February, 2015

QASBA2011: Antinisca Di Marco, C. Pompilio, A. Bertolino, A. Calabro', F. Lonetti and A. Sabetta, Yet Another Meta-Model to specify Non-Functional Properties, QASBA2011. Lugano, Switzerland, September 14, 2011

InfQ2011: F. Calvarese, Antinisca Di Marco and I. Malavolta, Towards a graphical representation for the
QUASOSS2010: Antinisca Di Marco and A. Sabetta, Model-based dynamic QoS-driven service composition, in: 2nd International Workshop on the Quality of Service-Oriented Software Systems (QUASOSS), 2010. October 4th, 2010 in Oslo, Norway.

INFQ2011: AEmilia Architecture Description Language, InfQ2011. Lipari, 27-29 giugno 2011

ECSA 2010: Antinisca Di Marco, F. Gallo, P. Inverardi and R. Ippoliti, Learning from the Cell Life-Cycle: A Self-adaptive Paradigm, ECSA 2010. Copenhagen Denmark August 23 - 26, 2010.

SASO2010: Antinisca Di Marco, F. Gallo, P. Inverardi and R. Ippoliti, Towards a Stem Architecture Description Language for Self-Adaptive Systems, in: Fourth IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO), 2010. Budapest, Hungary, September 27-October 1,
2010

ISoLA 2008: A. Bertolino, G. De Angelis, Antinisca Di Marco, P. Inverardi, A. Sabetta, M. Tivoli: A Framework for Analyzing and Testing the Performance of Software Services. ISoLA 2008. 13-15 October 2008 - Porto Sani (Kassandra, Chalkidiki) – Greece

QoSA2005: Antinisca Di Marco and F. Lo Presti, Two Early Performance Analysis Approaches at work on Simplicity System, First International Conference on the Quality of Software Architectures (QoSA), 2005, 20-22 September. Erfurt, Germany

WOSP2005: M. Caporuscio, Antinisca Di Marco, P. Inverardi. Run-time performance management of the Siena publish/subscribe middleware. WOSP 2005, July 11-14, 2005 Palma de Mallorca, Illes Balears, Spain

TACOS2004: V. Cortellessa, Antinisca Di Marco, P. Inverardi, F. Mancinelli and P. Pelliccione, A Framework for the Integration of Functional and Non-functional Analysis of Software Architectures. Workshop on Test and Analysis of Component-based Systems TACOS 2004, Barcelona, Spain, March 27-28, 2004.

ASE2004: D. Compare, A. D'Onofrio, Antinisca Di Marco, P. Inverardi. Automated Performance Validation of Software Design: An Industrial Experience. ASE 2004, 20-25 September 2004, Linz, Austria.

WICSA2004: Antinisca Di Marco, P. Inverardi. Compositional Generation of Software Architecture Performance QN Models. WICSA 2004. 12-15 June 2004, Oslo, Norway
RAMSS2004: M. Castaldi, Antinisca Di Marco and P. Inverardi, Data driven reconfiguration for performance improvements: a model based approach, RAMSS2004 an ICSE workshop, 2004. 23-28 May 2004, Edinburgh, United Kingdom

WOSP2004: S. Balsamo, M. Marzolla, Antinisca Di Marco, P. Inverardi. Experimenting different software architectures performance techniques: a case study. WOSP 2004. Redwood Shores, California, USA, January 14-16, 2004

DSN 2004: V. Cortellessa and Antinisca Di Marco, Towards uniform interchange formats for performance validation tools, in: 2004 International Conference on Dependable Systems and Networks (DSN 2004), 28 June - 1 July 2004, Florence, Italy - Fast Abstract, 2004

FOCLASA 2003: V. Cortellessa, Antinisca Di Marco, P. Inverardi. Three Performance Models at Work: A Software Designer Perspective. Foundations of Coordination Languages and Software Architectures, a satellite event of CONCUR 2003. Marseille, France, September 3-5, 2003

SCESM 2003: Antinisca Di Marco and P. Inverardi, Starting from Message Sequence Chart for Software Architecture Early Performance Analysis, Workshop on scenarios and state machines: models, algorithms, and tools, an ICSE Workshop. May 3-10, 2003, Portland, Oregon, USA.

SCIENTIFIC RESPONSIBILITY FOR INTERNATIONAL AND NATIONAL RESEARCH PROJECTS, ADMITTED TO THE FUNDING ON THE BASIS OF COMPETITIVE TENDERS THAT INCLUDE PEER REVIEW

Co-Principal Investigator (Co-PI) and Co-Coordinator: "SoBigData.it - Strengthening the Italian RI for Social Mining and Big Data Analytics" (01.11.2022 – 31.03.2024, €3.5M for the University of L'Aquila) – Decreto Direttoriale n. 107 del 20.06.2022 - Avviso n. 3264 del 28/12/2021 "Rafforzamento e creazione di IR nell'ambito del Piano Nazionale di Ripresa e Resilienza".
This project aims to strengthen the Italian Hub both from a technological, legal and ethical, economic and training point of view to train new users of the European RI SoBigData which has entered the ESFRI roadmap.
PARTNERS: CNR, UNIVERSITÀ DI PISA, SCUOLA SUPERIORE SANT'ANNA, SCUOLA NORMALE SUPERIORE, IMT SCHOOL FOR ADVANCED STUDIES LUCCA, ROMA La Sapienza, UNIVERSITÀ DI GENOVA, UNIVERSITÀ DI BOLOGNA, UNIVERSITÀ DI PALERMO, UNIVERSITÀ DI CATANIA.

Co-PI, Scientific Coordinator of research IT infrastructure, leader of WP1 and WP2 (https://territoriaperti.univaq.it/organigramma-2/) and member of the operational technical committee of the national research project Territori Aperti (Dec. 2018-Apr 2024, grant of 1.8M - www.territoriaperti.univaq.it)
It is a national project (funded by Fondo Territori Lavoro Conoscenza CGIL CISL UIL) dealing with reconstruction processes after natural disasters. The project aims, among the others objectives, to realize an information system of data coming from main earthquakes in Italy, to provide a research virtual environment where to run data analysis (based on machine learning techniques and statistical models) and to specify guidelines to guide in future events.
PARTNERS: Comune dell'Aquila, CNR-ISTI di Pisa, L'Ufficio Speciale della ricostruzione dell'Aquila, l'Ufficio Speciale della Ricostruzione dei comuni del cratere, e l'Università degli studi G. D'Annunzio di Chieti-Pescara.

Scientific coordinator of the Bioinformatics and eHealth research unit of the University of L'Aquila for LIFEMAP: DALLA PATOLOGIA PEDIATRICA ALLE MALATTIE CARDIOVASCOLARI E NEOPLASTICHE NELL'ADULTO project (Feb. 2023- Jan. 2026, € 1,092,000 for the University of L'Aquila): **Italian project Call T3-AN-14**
The main objective of LIFEMAP is genomic mapping for medicine and prevention customized. In particular, the mapping traces from pediatric pathology to cardiovascular diseases and neoplastics in adults.
PARTNERS: IRCCS Istituto Giannina Gaslini, IRCCS San Raffaele-Pisana, AORN Santobono-Pausilipion, ASL Teramo, Università dell'Aquila, Centro per la Formazione Permanente e l'Aggiornamento del Personale del Servizio Sanitario, Università Telematica San Raffaele Roma, Centro di Ricerca, Sviluppo e Studi Superiori in Sardegna, Università degli Studi di Enna Kore, Università degli Studi di Padova.

Co-PI and Unit Coordinator: SoBigData RI PPP- EU project - Call HORIZON-INFRA-2021-DEV-02 (grant n. 101079043, 01.10.2022- 30.09.2025, €52K for University of L'Aquila)
SoBigData RI entered in the ESFRI Roadmap and SoBigData RI PPP will move the RI forward to develop concrete tools that operationalize ethics with value-sensitive design, incorporating values and norms for privacy protection, fairness, transparency, and pluralism.

PARTNERS: The project consortium is composed by 28 partner European Partners.

Co-PI and Unit Coordinator: European project SoBigData++ (INFRAIA-01-2018-2019- Grant number: 871042- Jan. 2020-Dec. 2024 - http://project.sobigdata.eu/). SoBigData++ strives to deliver a distributed, Pan-European, multidisciplinary research infrastructure for big social data analytics, coupled with the consolidation of a cross-disciplinary European research community, aimed at using social mining and big data to understand the complexity of our contemporary, globally-interconnected society. SoBigData RI, with its tools and services, empowers researchers and innovators through a platform for the design and execution of large-scale data science and social mining experiments, open to users with diverse backgrounds, accessible on cloud (aligned with EOSC guidelines), and also exploiting supercomputing facilities. SoBigData RI will render social mining experiments more efficiently designed, adjusted, and repeatable by non-data scientists' domain experts by pushing the FAIR (Findable, Accessible, Interoperable) and FACT (Fair, Accountable, Confidential and Transparent) principles.
PARTNERS: The project consortium is composed by 32 partner European Partners.

Co-PI and Scientific Coordinator of University of L'Aquila Beneficiary of FP7-Ideas-ERC starting Grant "VISION" (Video-oriented UWB-based Intelligent Ubiquitous Sensing - grant number 240555 - 1.04.2010-2015 - **€195K budget managed by Antinisca Di Marco**) - VISION is a multi-beneficiary ERC grant awarding prof. Dajana Cassioli. It aims to develop an innovative infrastructure providing realtime sensing services, with particular emphasis on 3D video, with mobile and context-aware characteristics.

Leader of WP5: Analysis of citizen preparedness and ecosystems resilience to disasters of *Spoke 5 on Environment and natural disaster* of the **"National Centre for HPC, Big Data and Quantum Computing" Research program** CN00000013, funded by Decreto Direttoriale di concessione del finanziamento n.1031 del 17.06.2022 a valere sulle risorse del PNRR MUR – M4C2 – Investimento 1.4 - Avviso "Centri Nazionali" - D.D. n. 3138 del 16 dicembre 2021
The national centre (CN) aims to create the national digital infrastructure for research and innovation, starting from the existing HPC, HTC and Big Data infrastructures evolving towards a cloud datalake model accessible by the scientific and industrial communities through flexible and uniform cloud web interfaces, relying on a high-level support team, form a globally attractive ecosystem based on strategic public-private partnerships to fully exploit top level digital infrastructure for scientific and technical computing and promote the development of new computing technologies. The CN will be structured according to the hub and spoke model: the hub is responsible for the validation and management of the research program, whose activities are elaborated and implemented by the spokes and their affiliate institutions, as well as through open calls. The hub implements all the activities on education and training, entrepreneurship, knowledge transfer, policy and outreach, and coordinates a transversal research group on Societal Implication and Impact. Hub and spokes consist of Universities, Research Institutions as well as private and public operators. The proposed CN includes one cross spoke, Spoke 0 "Supercomputing Cloud Infrastructure", and 10 thematic Spokes among which Spoke 5 on ENVIRONMENT & NATURAL DISASTERS
SPOKE 5 PARTNERS: UNIAQ, UNIFI, UNIBA, ENEA, POLIBA, INGV, SAPIENZA,CNR

PI and coordinator of the DIANA (Data science analysis to determine the Influence of multiple conjoint mirnAs on caNcer diseAse) project (May 2016-Apr. 2017, **$20K Azure Microsoft Research Award**)

The main expected outcomes are new functional prediction techniques to determine putative targets genes influenced by a set of conjoint MicroRNAs and unobserved miRNAs-targets (multi-hop) relations that can guide towards new directions in in-vivo experiments.
PARTNERS: DISIM and DISCAB Departments of University of L'Aquila

PI and Coordinator of the ARES (mirnAs' influence on canceR disEaSe) ISCRA Class C Projects (code: HP10CV8XPV, 1 April 2015- 1 January 2016).
MicroRNAs (miRNAs) are involved in various pathologies including cancers. In this project, we aim to predict target genes for a selected miRNAs, to identify functional of clusters target genes could be related to.
PARTNERS: DISIM and DISCAB Depts. of University of L'Aquila

PI and coordinator of PERFcycle: Performance data intErpretation and feedback geneRation on soFtware lifecycle artifacts project (budget: €12K) funded by University of L'Aquila since it was evaluated as very good project at an European competitive call.

PROPOSAL EXPERT EVALUATOR AND PROJECT REVIEWER

2016-present Evaluator for several national and international projects

Ph.D. STUDENTS SUPERVISING

Past Ph.D. Students

Advisor of Francesco Gallo (2009-2013, University of LAquila)
THESIS TITLE: Proteus: A framework to specify and to implement reconfiguration plan
Current Position: professor of informatics at high school.

Advisor of Stefano Pace (2010-2014, University of L'Aquila)
THESIS TITLE: Development Framework for Adaptive Wireless Sensor Networks Applications
Current Position: Full-stack Developer of Gruppo Maggioli S.p.A.

co-Advisor of Mai Iyad Abusair (December 2014-2018, University of LAquila).
THESIS TITLE: User Driven Analysis for Context Aware Systems and Programs
Current Position: assistant professor at Computer Science Dept., An-Najah National University, Nabul, Palestine

co-Advisor of Walter Tiberi (November 2016-2020, University of LAquila).
THESIS TITLE: A Security Framework for Wireless Sensor Networks
Current Position: he is researcher (RTD-A) in cybersecurity at University of L'Aquila.

co- Advisor of Evans Etrue Howard (January 2019-september 2022, University of LAquila).
THESIS TITLE: Optimization Models for Pedestrian Emergency Evacuation Planning

Advisor of Ghulam Mudassir (January 2019-september 2022, University of LAquila).

THESIS TITLE: Reinforcement Learning And Social Based Approach to Post-disaster Reconstruction Planning
Current Position: Software Quality Automation Engineer at MSC Technology (Torino), Italy.

Current Ph.D Students

Advisor of Andrea Bianchi(started on November 2020, University of LAquila). He is working on Bioinformatics pipelines for copy number variation and on differential genes expression. He is also working on an innovative trustworthy machine learning approach for multi-modal health data to improve personalized medicine.

Advisor of Giordano D'Aloisio (started on November 2021, University of LAquila). He is working on the definition and implementation of a software engineering approach that democratizes the quality-based machine learning development through model-driven techniques. The main quality attributes he is considering are fairness and execution time.

Advisor of Payel Patra (started on November 2022, University of LAquila). She is working on the implementation and assurance of FAIR (findability, accessibility, interpretability and reusability) principles to simplify the open science. Her work is supported by European Union - NextGenerationEU – National Recovery and Resilience Plan (Piano Nazionale di Ripresa e Resilienza, PNRR) - Project: “SoBigData.it - Strengthening the Italian RI for Social Mining and Big Data Analytics” - Prot. IR0000013

Advisor of Gennaro Zanfardino (started on November 2022, University of LAquila). He is working on developing a Regional Digital Twin that helps PA and local institution to manage the territory pre and post disaster, to reduce natural risks and to improve the sustainability of an area management.

Co-Advisor of Andrea D’Angelo (started on November 2022, University of LAquila). He is working on information retrieval research domain devising novel unsupervised document ranking approaches based on Large Language Models (LLMs) such as OpenAI’s GPT and Google’s BERT.

PARTICIPATION TO DOCTORAL BOARDS AND EVALUATION COMMITTEE

from Doctoral cycle XXVIII to Doctoral cycle XXXIX — **Doctoral board in "INGEGNERIA E SCIENZE DELL'INFORMAZIONE " -** University of L'Aquila, L’Aquila Italy.

MEMBER of the reference group "RG 2.2 Software engineering and intelligent systems" of the Curriculum no. 2 – “Emerging computational models, software architectures, and intelligent systems” of the Doctoral board in INGEGNERIA E SCIENZE DELL'INFORMAZIONE, University of L'Aquila (Italy)

Doctoral Cycle XXVI — **Doctoral Board in “Informatica and Applicazioni” –** University of L'Aquila, L’Aquila Italy.

November 2014 — Member of the **Evaluation Committee for the doctoral defense** of Mr. Nikola Rendeski, Faculty of Electrical Engineering and Information Technologies, Ss. Cyril and Methodius University, SKOPJE, Rep. of MACEDONIA (November 11th 2014)

Jan 2022 - Feb 2023 — President of the **Selection Committee** of the PhD Admission Competition in INGEGNERIA

E SCIENZE DELL'INFORMAZIONE, XXXVIII cycle.

June - July 2021 President of the **Selection Committee** of the Doctoral Admission Competition in INGEGNERIA E SCIENZE DELL'INFORMAZIONE, XXXVII cycle.

September 2021 Member of the **Selection Committee** of the PhD Admission Competition in Matematica e modelli, XXXVII cycle.

October 2013 Member of the **Selection Committee** of the PhD Admission Competition in INGEGNERIA E SCIENZE DELL'INFORMAZIONE, XXIX cycle.

DIRECTION OF RESEARCH GROUPS

2015-present Director of the University of L'Aquila Node of the InfoLife CINI Laboratory. The laboratory deals with Bioinformatics and System Biology research topics.

Apr. 2018- July 2020 Reference person of University of L'Aquila for the CINI Digital Health Working Group of the "ICT for healthcare".

October 2012 - present **COORDINATOR OF THE BIOINFORMATIC AND eHEALTH RESEARCH GROUP of University of L'Aquila**

Based on a scientific interest that led the candidate to work, among other things, in the area of bioinformatics research, in the a.y. 2012/13 the new teaching of was established “Bioinformatics” (6 ECTS), still delivered in English in 4 study programmes, 3 of which in international character: Bachelor in Computer Science, Master degree in Computer Science, in Applied Data Science and in Engineering Mathematics. The candidate has carried out an intense research and coordination activity which has made it possible to set up a stable group of interdisciplinary research in collaboration with biologists and doctors of the University dell'Aquila, with the l’Istituto Zooprofilattico Sperimentale dell’Abruzzo e del Molise “G. Caporale”, with a medical research unit on cardiovascular diseases of the University of Pisa, and, in the context of the project LIFEMAP, with other research institutes such as: IRCCS Istituto Giannina Gaslini, IRCCS San Raffaele-Pisana, AORN Santobono-Pausilipion, Center for Research, Development and Higher Studies in Sardinia, University of Padua. Furthermore, the candidate worked for the creation of a node of the CINI Laboratory INFOLIFE of which she is currently director.

Active research project of the research group:
- VITALITY European Union - NextGenerationEU under the Italian Ministry of University and Research (MUR) National Innovation Ecosystem. Spoke 1: MEGALITHIC - MEthods and technoloGies enhAncing Local speclalization sTrategies in Health, Industry and Cybersecurity
- LIFEMAP: DALLA PATOLOGIA PEDIATRICA ALLE MALATTIE CARDIOVASCOLARI E NEOPLASTICHE NELL'ADULTO

Past research project of the research group
- iCARE ERC Proof Of Concept Grant project
- ARES project
-DIANA project

Main active and past collaborations:
-Dep. DISCAB: research group composed of profs. Edoardo Alesse and Alessandra Tessitore, Dr Veronica Zelli on MicroRNA issues, exome analysis (e.g., gene expression, search for mutations and copy number variation) of samples extracted from breast cancer patients.
-Dep. DISCAB, research group composed of Prof. Maria Concetta Fargnoli and the researcher Cristina Pellegrini on exome analysis topics (e.g., gene expression, mutation search e copy number variation) of samples extracted from patients with melanoma.
-Dep. MESVA, research group of prof. Francesco Brancati on mutation research and copy number variation related to rare diseases, genetic mapping to trace from pediatric pathology to cardiovascular and neoplastic diseases in adults, creation of the catalog of genetic variants uname.
- IZS “G. Caporale” and Larus Business Automation s.r.l. on Food Source Attribution through Machine Learning.
-University of Pisa: research group composed of profs. Agostino Virdis and Stefano Masi and researcher Alessandro Mencozzi on the definition of a new disease risk assessment model cardiovascular disease that also considers the patient's habits and history.

Current composition of the research group:
-Andrea Bianchi: PhD student in ICT on bioinformatics and machine learning in medical field
-Payel Patra: PhD students working on imaging processing and machine learning application to health data
- Ali Elzaeilik: student of Master degree in Computer Science (since may 2023)

Past Members:
Francesca Marzi: research fellow with data analysis skills applied in medicine (1 September 2022- 1 July 2023)
Alessia Gismundi: Master degree student in Applied Data Science, thesis: “Food Source Attribution through Machine Learning” in collaboration with IZS G.Caporale and Larus Business Automation s.r.l. (a.y. 2021/22)
Francesco Gallo: ICT PhD student who worked on DIANA and ARES (until June 2013)
Alberto Tiburzi: student of the Master Degree in Applied Data Science, thesis: Copy Number Variation pipelines to analyze and compare familiar breast cancer data (October 2021-July 2022)

July 2018-present **COORDINATOR OF THE RESEARCH GROUP ON OPEN DATA SCIENCE TOPICS**

After the happening of 2009 earthquake and the diffusion of data science and the principles of Open Science, since 2017 Antinisca Di Marco has been interested in issues related to the collection and analysis of data, and the development of new IT approaches and methodologies with the aim of improving the management processes of territories. Moreover, the research group started to work on innovative trustworthy machine learning and visual analytics approaches to embed in a novel regional digital twin. This research activity has helped to activate new collaborations with organizations and institutions (Municipality of L'Aquila, Special Office for the Reconstruction of L'Aquila, Civil Protection of the Region Abruzzo, Ufficio Speciale per la ricostruzione dei comuni del cratere) and with national and international research centers (involved in the creation and enhancement of the SoBigData Research Infrastructure, and with the Grenoble Informatics Laboratory for the creation of the regional digital twin). The activities were funded by national (Territori Aperti and SoBigData.it) e international (SoBigData++, SoBigData PP RI) projects.

Active research project of the group:
-Territori Aperti
-SoBigData++, SoBigData PPP RI, SoBigData.it projects
-PNRR projects of three funded PhD scholarships on the topics of the Regional Digital Twin from the Ministerial Decree no. DM118/2023 (PNRR) – PhD. Program in Information Engineering and Computer Science – University of L'Aquila – XXXIX cycle
- **"National Centre for HPC, Big Data and Quantum Computing" -** *Spoke 5 on Environment and natural disaster*

Current composition of the research group:
-PhD. Michele Tucci, RTD-a: he is involved in SoBigData.it project to create a novel data center in L'Aquila. He is co-advisor of Ph.D. Student Gennaro Zanfardino.
PhD. Daniele Di Pompeo RTD-a: he is involved in SoBigData.it project to create a novel data center in L'Aquila. He is co-advisor of Ph.D. Student Payel Patra.
-Luca Traini, research fellow: he deals with the analysis of data on natural disasters and the performance of the Open Science research infrastructure of Territori Aperti
-Giordano D'Aloisio, PhD student: he deals with the generation of machine learning pipelines that respect accuracy and fairness constraints
-Payel Patra PhD. Student of the cycle XXXVIII: will work on the research topic "Engineering software microservices for open science satisfying the FAIR principles"
-Jessica Leone, scholarship holder: she deals with the visual analytics of traces to improve performance.

Past Members
-Francesca Marzi, senior research fellow: deals with analysis and visualization of data deriving from disasters natural (sept. 2022 – march 2023)
-Giulia Scoccia, scholarship holder: she deals with the customization and management of the technological infrastructure of research
-Alessandro Di Matteo, scholarship holder: he deals with the management of the technological research infrastructure, with particular focus on the toolkit
-Ghulam Mudassir, post-doc: works on the implementation of innovative approaches for the definition of post-disaster reconstruction plans
-Evans Etrue Howard, post-doc: Work on developing innovative approaches to planning of evacuation.
-Tiziano Santilli: worked on the preprocessing and management of natural disaster data and on management of the technological research infrastructure of Territori Aperti (until 31.10.2021)
-Andrea Bianchi: Worked on developing an app-based health monitoring system
health of patients affected by covid (until 31.10.2020)
-Lorenza Pasquini: worked on the implementation of the GIS system integrated with the territorial systems
of local and national authorities (until 04.30.2022)
-Damiano D'Agostino: worked on the definition of ontologies for the modeling and analysis of decrees law related to the earthquake (until October 2020)

PARTICIPATION TO RESEARCH PROJECTS

AND GROUPS

2015-present **Participation to the research groups related to the national and international research projects for which Antinisca Di Marco plays/played a coordinating role** (LIFEMAP, Territori Aperti, SoBigData.it, National Centre for HPC, Big Data and Quantum Computing, SoBigData PPP RI, SoBigData++, VISION ERC grant, iCARE ERC POC, project funded by ISCRA CINECA, DIANA, PerfCycle)

July 2022-Feb 2026 **Participation to the Italian research project VITALITY (CUP E13C22001060006) European Union - NextGenerationEU under the Italian Ministry of University and Research (MUR) National Innovation Ecosystem grant ECS00000041).** Spoke 1: MEGALITHIC - MEthods and technoloGies enhAncing Local speclalization sTrategies in Health, Industry and Cybersecurity
PARTNERS
Spoke Coordinatore: Università degli Studi dell'Aquila (UnivAQ)
Affiliated Parteners: Università degli Studi di Teramo (UniTE), Università degli Studi di Macerata (UniMC), Università degli Studi del Molise (UniMol), Croce Rossa Italiana (CRI), Dompe
ROLE: R&D in the context of Wearable, Ambient Assisted Living, Big Data technology to elaborate health data.

June 2022-May 2025 **Participation to the national research project EMELIOT**: Engineered MachinE Learning-intensive IoT systems (**PRIN 2020, Prot.2020W3A5FY**)
EMELIOT studies solutions for engineering highly-dependable, ML-intensive IoT systems. It provides software engineers, data scientists, and ML experts a comprehensive set of methodologies, solutions, and tools to improve the development, verification, and operation of ML-intensive IoT systems. EMELIOT will help to improve industrial applications by optimizing maintenance, reducing costs, avoiding congestion and hazards, and improving sustainability.
PARTNERS: Milano Bicocca, Politecnico di Milano, Università di SALERNO, Università del SANNIO di BENEVENTO, Università dell'Aquila
ROLE: R&D Team member as expert of ML-intensive systems developer and quality assessment.

01.09.2018 – 31.12.2021 **Participation to the national research project VASARI (ARS01 00456, call PON R&I 2014-2020).** "VASARI – Smart Valorization of the ARtistic Heritage of Italian Cities" combines the latest innovations in digital technologies, including augmented reality, to radically change the activities of valorization, fruition and management of works of art. (https://www.vasariartexperience.it/).
PARTNERS: The project consortium is composed by 14 industrial and academic partners: https://www.vasariartexperience.it/chi-siamo/
ROLE: Participation to the University of L'Aquila R&D Team as expert of software engineering

Feb. 2009 – Dec. 2012 **Participation to the international research project FP7-FET CONNECT: Emergent Connectors for Eternal Software Intensive Networked Systems, Agreement No: 231167. (http://connect-forever.eu/).** CONNECT aims at synthesizing on the fly the connectors via which networked systems communicate. The resulting emergent connectors are effectively synthesized according to the behavioral semantics of application- down to middleware-layer protocols run by the interacting parties. The synthesis process is based on a formal foundation for connectors, which allows learning, reasoning about and adapting the interaction behavior of networked systems at run-time. Synthesized connectors are

dependable, unobtrusive, and evolvable, while not compromising the quality of software applications.
PARTNERS: The project consortium is composed by 11 international industrial and academic partners (www.connect-forever.eu/consortium.html)
ROLE: University of L'Aquila R&D Team member as expert of Software Quality Modeling and Validation

2005-2009 **Participation to the international research project UE-FP6-STREP PLASTIC (FP6-2005-IST-6): Providing Lightweight and Adaptable Service Technology for pervasive Information and Communication (Agreement No: 026955) (http://plastic.paris-rocquencourt.inria.fr/)**
The PLASTIC project will develop a comprehensive provisioning platform for software services deployed over B3G networks. It will build upon both Web services and standard component-based technologies. The PLASTIC platform will integrate innovative methods and tools for service development, from design to validation, and a supporting middleware for service provisioning in B3G networks. The platform will enable dynamic adaptation of services to the environment with respect to resource availability and delivered QoS, via a development paradigm based on Service Level Agreements and resource-aware programming.
PARTNERS: INRIA INRIA, 4D SOFT, CNR-Pisatel, IBM, Siemens Business Services, Telefonica I+D, University College London, University of L'Aquila, University of Lugano, Virtual Trip, Pragmatica Technologies
ROLE: Post-Doc Fellow working on Modeling, design and validation of software architecture for context-aware services on B3G networks that satisfy user QoS requirements

2008-2009 **Participation to the national research project MIUR PRIN (Italian project) d-ASAP– Software Architectures for Dependable and Adaptable Pervasive Computing Systems: design, analysis and validation (prot. N. 2007XKEHFA_002)**
ROLE: University of L'Aquila R&D Team member as expert of Software Quality Modeling and Validation

Sept. 2005 - Apr. 2006 **Participation to the national research project MIUR FIRB (Italian project)- Performance Evaluation of Complex Systems: Tecniques, Methodologies and Tools – Collaboration with Università of TorVergata**
ROLE: Post-Doc Fellow on Performance Evaluation of complex software system through models.

March 2005 – August 2005 **Participation to the international research project FP7 - STREP SIMPLICITY - Secure, Internetable, Mobile Platforms LeadIng CItizens Towards simplicitY – Collaboration with University of TorVergata**
ROLE: Research Fellow on Modeling and Performance Evaluation of the Simplicity Architecture.

2002-2003 **Participation to the national research project related to MIUR PRIN (Italian project) SAHARA - Software Architectures for Heterogeneous Access Infrastructures.**
ROLE: University of L'Aquila R&D Team member as expert of Software Performance Modeling and Validation

Since June 2011 Member of InfQ (INFORMATICA QUANTITATIVA) Italian research group

AFFILIATION TO RESEARCH CENTERS OR INSTITUTIONS

from 2012 to 2014	External collaborator of the SENSO LAB at the Middlesex University, London, U.K.
Since its establishment	Member of Smart Cities & Communities CINI Laboratory, CINI Laboratory
	Member of HPC: Key Technologies and Tools CINI Laboratory, CINI Laboratory
	Member of the focus group on Quantum Computing of the HPC: Key Technologies and Tools CINI Laboratory, CINI Laboratory
	Member of the System and Service Quality Working Group CINI Consortium

SCIENTIFIC BOOK-MONOGRAPH

Model-Based Software Performance Analysis. Vittorio Cortellessa, Antinisca Di Marco Paola Inverardi. First Edition, Springer, May 2011

RESEARCH PROFILES

For the complete list of publication please refer to the following links:

Scopus	https://www.scopus.com/authid/detail.uri?authorId=7005795661
Google Scholar	https://scholar.google.it/citations?user=QVzuSyIAAAAJ&hl=it
DBLP	https://dblp.org/pid/m/AntiniscaDiMarco.html
PUBMED	https://pubmed.ncbi.nlm.nih.gov/?term=antinisca+di+marco

TEACHING

ACADEMIC TEACHING ACTIVITIES

From a.y. 2021-2022 to a.y 2022-2023 (ends of the range included)	Programming Fundamentals (6 CFU – 48 hours) – Bachelor course in Computer Science- University of L'Aquila Programming for Data Science (3 CFU – 24 hours) – Master course in Applied Data Science – University of L'Aquila Bioinformatics (6 CFU – 48 hours) – Elective course for several Bachelor and Master courses - University of L'Aquila Computer Basics (2 CFU – 8 hours) – in first year of Specialization Schools in Radiology Therapy and in Radiodiagnostics – University of L'Aquila Computer Basics (1 CFU – 4 hours) – in first year of Specialization Schools in Oncology and in General Surgery – University of L'Aquila Computer Science (2 CFU - 8 hours) – in first year of Specialization Schools in Neurology and in General Surgery – University of L'Aquila Computer Science (3 CFU - 12 hours) – in second year of Specialization Schools in General Surgery – University of L'Aquila
From a.y. 2018-2019 to a.y 2020-2021 (ends of the range included)	Programming for Data Science (6 CFU – 48 hours) – Master course in Applied Data Science – University of L'Aquila Bioinformatics (6CFU – 48 hours) – Elective course for several Bachelor and Master courses - University of L'Aquila Computer Skills (2 CFU – 18 hours) – Bachelor Degree in Biotechnology – University of L'Aquila Computer Basics (2 CFU – 8 hours) – in first year of Specialization Schools in Radiology Therapy and in Radiodiagnostics – University of L'Aquila Computer Basics (1 CFU – 4 hours) – in first year of Specialization Schools in Oncology – University of L'Aquila Computer Science (2 CFU - 8 hours) – in first year of Specialization Schools in Neurology and in General Surgery – University of L'Aquila
From a.y. 2019-2020 to a.y. 2021/2022 (ends of the range included)	Secure systems for management and analysis of (Big)data (2.5 CFU 20 hours) – 1st level Professional Master in Post-disaster technical-administrative management in local authorities – University of L'Aquila
From a.y. 2016-2017 to a.y 2017-2018 (ends of the range included)	Bioinformatics (6CFU – 48 hours) – Elective course for several Bachelor and Master courses - University of L'Aquila Computer Basics (2 CFU – 8 hours) – in first year of Specialization Schools in Radiology Therapy and in Radiodiagnostics – University of L'Aquila Computer Basics (1 CFU – 4 hours) – in first year of Specialization Schools in Oncology – University of L'Aquila Computer Science (2 CFU - 8 hours) – in first year of Specialization Schools in Neurology and in General Surgery – University of L'Aquila
a.y. 2015-2016	Bioinformatics (6CFU – 60 hours) – Elective course for several Bachelor and Master courses - University of L'Aquila

Computer Basics (2 CFU – 8 hours) – in first year of Specialization Schools in Radiology Therapy and in Radiodiagnostics – University of L'Aquila
Computer Basics (1 CFU – 4 hours) – in first year of Specialization Schools in Oncology – University of L'Aquila
Computer Science (2 CFU - 8 hours) – in first year of Specialization Schools in Neurology and in General Surgery – University of L'Aquila

Bioinformatics (1 CFU – 4 hours) (since a.y. 2015-2016) - Master di I livello "Diagnostica molecolare delle malattie genetiche, tumorali ed infettive".

Mobile Health (2 CFU – 8 hours) (2015-2016) - Master di II livello "Cure di supporto e palliative in oncologia".

a.y. 2014-2015 — Didactics of Projects and Complex Software (3 CFU – 18 hours) TFA II cycle (Tirocinio Formativo attivo) – University of L'Aquila

Computer Basics (2 CFU – 8 hours) – in first year of Specialization Schools in Radiology Therapy, in Neurology, in General Surgery, in Vascular Surgery, in Oncology – University of L'Aquila

From a.y. 2013-2014 to a.y. 2014-2015 (ends of the range included) — Software Engineering with Lab. (9 CFU – 90 hours) - Bachelor course in Computer Science- University of L'Aquila

Bioinformatics (6CFU – 60 hours) – Elective course for several Bachelor and Master courses - University of L'Aquila

a.y. 2012-2013 — Bioinformatics (6CFU – 60 hours) – Elective course for several Bachelor and Master courses - University of L'Aquila

Software Engineering (6 CFU – 54 hours) - Bachelor course in Computer Science- University of L'Aquila

From a.y. 2008-2009 to a.y. 2011-2012 (ends of the range included) — Software Engineering (6 CFU – 60 hours) - Bachelor course in Computer Science- University of L'Aquila

a.y. 2007-2008 — Programming Fundamentals (6 CFU – 60 hours) – Bachelor course in Computer Science- University of L'Aquila

a.y. 2005-2006 — Informatics and Statics Laboratory (3 CFU – 27 hours) - Bachelor Degree in Biotechnology – University of L'Aquila

THESIS SUPERVISING AND TUTORING

Bachelor theses

She was supervisor of more than 30 theses at University of L'Aquila. Three BSC theses produced the following research papers: i) Flavia Di Paolo et al. MICE: Monitoring and Modeling the Context Evolution. SASO Workshops 2012: 139-144. ii) Claudio Pompilio et al. Yet another meta-model to specify non-functional properties. QASBA 2011: 9-16. iii) Damiano D'agostino et al. SismaDL: an Ontology to Represent Post-disaster Regulation. ILOG Workshop.

Master theses She was supervisor of Supervisor of more than 10 theses in Computer Science, Mathematics, Bioinformatics (also at University of Rome Tor Vergata), and Applied Data Science at University of L'Aquila.

TECHNOLOGY TRANSFER

TECHNOLOGY TRANSFER, PATENTS AND SPIN-OFF

Spin-off

SMARTLY NATIVES OF SMARTY LIVING s.r.l.
Spin-off of the University of L'Aquila, born on May 2014, for which Antinisca Di Marco is one of the founding and majority partner. (2014-today)

Member of the Board of Directors of SMARTLY NATIVES OF SMARTY LIVING s.r.l., a Spin-off of the University of L'Aquila. (May 2014 - February 2018)

Project participation

Participation to the project RIDITT RICOSTRUIRE (Italian project) 2012-2015 – Technology transfer and creation of new businesses in the field of advanced ICT technologies applied to post-earthquake economic and territorial development.

Participation to the project VASARI (ARS01 00456) PON R&I 2014-2020: “VASARI – Smart Valorization of the ARtistic Heritage of Italian Cities” combines the latest innovations in digital technologies, including augmented reality, to radically change the activities of valorisation, fruition and management of works of art. (https://www.vasariartexperience.it/)

Grants and recognition for technology transfer activities

EUR 10000 grant for CARE-me a project for an intelligent car baby-seat, chosen as one of the top business ideas presented from the project "RICOSTRUIRE: Trasferimento Tecnologico e creazione di nuove imprese nell'ambito delle tecnologie ICT avanzate applicate allo sviluppo economico e territoriale post sisma " (Ministero dello Sviluppo Economico-Programma RIDITT Rete Italiana per La Diffusione dell'Innovazione e il Trasferimento Tecnologico alle imprese). Care-me is the core-business of SMARTLY s.r.l. spin-off

EUR 12000 grant by the Comitato Abruzzo, through the initiative Quick impact Project. On the list of projects funded in the first call, CARE-me occupies the fourth place on 18. The grant was a financial support for the establishment of SMARTLY s.r.l.

EUR 5000 grant from Fondazione Cassa di Risparmio della Provincia dell'Aquila for the realization of the project "CARE-me: non ti sCordARE di ME" whose aim is the realization of a prototype of a smart baby seat-care.

Technology Transfer projects from competitive calls

iCARE ERC Proof Of Concept Grant (Proposal n. 693680, June 2016-Nov. 2017, €150K).
PARTICIPANTS: SMARTLY s.r.l., Università dell’Aquila
ROLE: scientific coordinator of University L’Aquila research team
iCARE aimed at creating a technology-aided framework to enable a reliable implementation of cancer targeted therapy at home, addressing underlying challenges, and to make available the monitoring data to enable studies for therapy refinements and reduction of symptoms and side effects. iCARE proposed new organizational models to strengthen the cooperation and interaction between health professionals, social careers, informal caregivers and patients to support new patient pathways emerging from the increased application of cancer targeted

therapies at home.

Industrial research projects

Industrial research project with IMMEDYA s.r.l. on the specification and elaboration of a social and environmental sustainability rating of companies (Nov. 2020-May 2022, 14K€).
ROLE: Co-Principal Investigator and Co-coordinator

Industrial research project with IMMEDYA s.r.l on Developing a software system on cloud for data collection and calculation of the environmental and social sustainability rating of companies (06.07.2022- today, 10K€)
ROLE: Principal Investigator and coordinator

GOVERNANCE SERVICES

INSTITUTIONAL, ORGANIZATIONAL AND SERVICE ACTIVITIES AT THE UNIVERSITY

Oct. 2018-Oct. 2021	Chair of the Master Study Programme in Applied Data Science for 2018/2019-2019/2020-2020/2021 academic years, Department of Information Engineering and Computer Sciences and Mathematics (DISIM), University of L'Aquila
Oct. 2018-Oct. 2021	Member of the Teaching Commission of the Department of Computer Engineering and Computer Science and Mathematics, University of L'Aquila.
2 July 2018 – 22 October 2018	Chair of the committee for the design and establishment of the new interdepartmental master degree course in Applied Data Science (class LM91- Methods and Techniques for information society), University of L'Aquila.
Sept 2021- June 2022	Chair of the Committee for the transition of Master's degree (interdepartmental) in Applied Data Science from class LM91 (Methods and Techniques for information society) to the new class LM Data (Data science).
January 2019 – September 2019	Delegate of the rector of the University of L'Aquila for the working group of the CRUI on the gender gap STEM.
Since march 2023	Member of the Scientific Advisory Board of CeTemps Center of Excellence, University of L'Aquila, Italy
Jan. 2023- Oct. 2023	2023 Minerva Informatics Equality Award Committee. Informatics Europe
Since 2018	Member of the Operational Board of Territori Aperti project (https://territoriaperti.univaq.it/)
Since a.y. 2019/2021	Member of the Organizing Committee of the Professional Master "Post-disaster technical-administrative management in local authorities" at University of L'Aquila
26/03/2022	Chair of the master's degree graduation commission for APPLIED DATA SCIENCE Master Degree Course
24/7/2021	Chair of the master's degree graduation commission for APPLIED DATA SCIENCE Master Degree Course
	Chair of the master's degree graduation commission for COMPUTER SCIENCE Master Degree Course
December 2017 - present	Member of the Scientific Committee of the Digital Class Laboratory, University of L'Aquila, Italy, later Coordinator of the Laboratory.
October 2017-present	Member of the evaluation committee of around 50 university competitions for the selection of RTD-a , post-doc, graduate scholarship for research activities.

ACADEMIC ORIENTATION ACTIVITIES

PINKAMP

Co-Founder and co-Coordinator of PINKAMP (2018-present) - www.pinkamp.disim.univaq.it

PINKAMP is a prokject started in 2018 and aims to attract high school girls and to contrast the gender gap in STEM studies. It is promoted and supported by the Department of Information Engineering, Computer Science and Mathematics and the CUG (Comitato Unico di Garanzia) committee of University of L'Aquila.

It has been listed first as positive action and later as important strategy in the Gender Equality Plan of the University of L'Aquila.

Pinkamp entered among the top 5 finalists of the 1st National Prize for Digital Skills, which is an initiative of the Digital Republic promoted by the Department for the digital transformation of the Presidency of the Council of Ministers and realized with the support of Formez PA.

Since 2018, PINKAMP attracted more than 120K€ and the editions 2023 and 2024 enter as part of the WP5 - Responsible Data Science and Training actions of the SoBigData.it project, specifically in the Activity 5.7: Educational activities supported by UNIVAQ of and contributes to the achievement of the objectives Support high level training initiative (O5.3), Promoting diversity and inclusion (O5.5.1) and Cultivating new generation of data scientists (O5.4).

GRANTS:

EUR 20.000 grant from Fondo Territori Lavoro e Conoscenza CGIL CISL UIL for the realization of the project "double PINKAMP 2022 e 2023".

EUR 21.000 funding of University of L'Aquila for the organization of PINKAMP 2023, 2022, 2021, 2020 and 2019.

EUR 20.000 grants from Elena Grifoni Winters (a private individual funder) for PINKAMP 2022 and 2023.

EUR 20.000 grant from Fondo Territori Lavoro e Conoscenza CGIL CISL UIL for the realization of the project "double PINKAMP 2020 e 2021".

EUR 2.000 grant from Fondazione Cassa di Risparmio della Provincia dell'Aquila for the project "PINKAMP 2020".

EUR 40.000 grant from Fondo Territori Lavoro e Conoscenza CGIL CISL UIL for the project "PINKAMP 2019".

PARTICIPATION TO INTERNATIONAL COOPERATION PROJECTS AND WORKING GROUPS

25.05.2022-present

Member of the European cooperation project: " CA19122 - European Network For Gender Balance in Informatics (EUGAIN) of the European Cooperation in Science and Technology (COST). Participation active at WG4: Cooperation with Industry and Society. Project start date - 10/19/2020, end date project - 10/18/2024.

Apr. 2022 - present

Member of the Working Groups Of the association Informatics Europe on Diversity and Inclusion (https://www.informatics-europe.org/society/diversity-and-inclusion.html), Open Science (https://www.informatics-europe.org/research/open-science.html), and Sustainability (https://www.informatics-europe.org/society/sustainability.html).

DISSEMINATION AND CULTURAL ACTIVITIES

December 2014 – December 2022

Member of the Executive Board of Off Site Art, an association established in L'Aquila that promotes culture initiative.

CULTURAL EVENTS ORGANIZATION

Several events related to Territori Aperti project (https://territoriaperti.univaq.it/blog/)

Organizing Committee co-Chair: Final Contest of Pinkamp – Le ragazze contano! Edition 2022 @Street Science 30 September 2022, L'Aquila, Italy (https://www.univaq.it/include/utilities/blob.phptable=evento&id=1615&item=programma)

Organizing Committee co-Chair: Final Contest of Pinkamp – Le ragazze contano! Edition 2021 @StreetScience 24 September 2021, L'Aquila, Italy (https://www.univaq.it/include/utilities/blob.php?table=evento&id=1465&item=programma)

Organizing Committee co-Chair: Final Contest of Pinkamp – Le ragazze contano! Edition 2020 @ StreetScience 25 settembre 2020 (https://www.univaq.it/include/utilities/blob.php?table=evento&id=1306&item=programma)

Organizing Committee co-Chair: Final Contest of Pinkamp – Le ragazze contano! Edition 2019, (https://pinkamp.disim.univaq.it/edizioni-precedenti/2019/index.html)

BOOK-MONOGRAPH

PinkBooK 2020 - le ragazze contano! Antinisca Di Marco, Laura Tarantino. Arkhe' Edizioni - L'Aquila. Settembre 2020. ISBN: 978-88-94836-31-8.

PinkBooK 2021 - le ragazze contano! Antinisca Di Marco, Laura Tarantino. Arkhe' Edizioni - L'Aquila. Settembre 2021. ISBN: 978-88-94836-36-3. Downloadable from the link: https://pinkamp.disim.univaq.it/edizioniprecedenti/2021/download/PinkBook2021.pdf

PinkBooK 2022 - le ragazze contano! Antinisca Di Marco, Laura Tarantino. Arkhe' Edizioni - L'Aquila. Settembre 2022. ISBN: 8894836401