Curriculum vitae et studiorum di Carlo Bucci

Dati Personali

NOME E COGNOME Carlo Bucci

INDIRIZZO INFN - LNGS

Via G. Acitelli 22 67010 Assergi (AQ)

Istruzione e formazione

DATA Gennaio 2021 - oggi

POSIZIONE Dirigente di Ricerca

SEDE INFN - LNGS

DATA 2018

Abilitazione scientifica nazionale come Professore di I fascia nel settore

02/A1 - Fisica sperimentale delle interazioni fondamentali.

DATA Gennaio 2016 - oggi

POSIZIONE Primo Ricercatore

SEDE INFN - LNGS

DATA Gennaio 2009 - Dicembre 2015

POSIZIONE Primo Tecnologo

SEDE INFN - LNGS

DATA 2012

Abilitazione scientifica nazionale come Professore di II fascia nel settore

02/A1 - Fisica sperimentale delle interazioni fondamentali.

DATA Marzo 2001 - Dicembre 2008

POSIZIONE Tecnologo
SEDE INFN - LNGS

DATA Aprile 2000 - Marzo 2001

POSIZIONE Assegno di ricerca della durata di quattro anni (bando n. 7640/99) dal

titolo: "Sviluppo delle tecniche dei rivelatori di bassa temperatura"

SEDE INFN - LNGS

DATA Novembre 1999 - Marzo 2000

POSIZIONE Borsa di studio conferita dalla comunità Europea nell'ambito del

programma "Training and Mobility of Researchers" sotto il contratto

ERB-FMRX-CT98-0167 ("Cryogenic Detectors")

SEDE Technische Universität di Monaco (gruppo E15 del Prof. F. von Feilitsch)

DATA Ottobre 1994 - Ottobre 1999

POSIZIONE Tecnologo a tempo determinato (ex Art. 36)

SEDE INFN - LNGS

DATA Ottobre 1993 - Ottobre 1994

POSIZIONE Borsa di studio nel gruppo NED (Nieder Energie Detektoren).

SEDE Max Planck Institut für Physik di Monaco di Baviera

DATA Giugno 1992 - Giugno 1993

POSIZIONE Servizio militare
SEDE Albenga e Milano

DATA Novembre 1986 - Maggio 1992

POSIZIONE Diploma di Laurea in Fisica -Titolo della tesi: "Un rivelatore per la misura

contemporanea di fononi e fotoni", relatore Prof. E. Fiorini

SEDE Università degli Studi di Milano

DATA Luglio 1996

TITOLO Diploma di maturità Classica

SEDE Liceo Ginnasio "A. Calcara" - Cosenza

Responsabilità ed Incarichi

SETTEMBRE 2022 - OGGI	Coordinatore Scientifico del progetto PNRR-IR LNGS-FUTURE
GIUGNO 2021 - OGGI	Membro dell'Executive Board dell'esperimento CUPID
OTTOBRE 2020 - OGGI	Responsabile della Divisione Ricerca dei LNGS
MARZO 2020 - OGGI	Spokesperson dell'esperimento CUORE
SETTEMBRE 2017 - OTTOBRE 2020	Membro della Commissione II dell'INFN come rappresentante dei LNGS
MARZO 2012 - MARZO 2020	Technical Coordinator dell'esperimento CUORE
GENNAIO 2012 - MAGGIO 2021	Membro dell'International Steering Committee del futuro esperimento CUPID (CUORE Upgrade with Particle IDentification)
2012	Proponente e Responsabile Nazionale della sigla INFN di gruppo V denominata ABSuRD (A Background Surface Rejection Detector)
NOVEMBRE 2010 - OGGI	Membro dell'Executive Board dell'esperimento CUORE
2009 - OGGI	Membro del Collaboration Council dell'esperimento CUORE, organo formato dai Principal Investigators dei gruppi più importanti della collaborazione
2008 - 2012	Membro del Collaboration Board dell'esperimento CRESST, organo formato dai Principal Investigators dei gruppi che compongono la collaborazione
2004 - 2010	Membro del Technical Coordinators Board dell'esperimento CUORE in qualità di responsabile del Working Group deputato alla realizzazione del laboratorio presso i LNGS.
	Responsabile Locale di CUORE-LNGS; coordino le attività del gruppo CUORE-LNGS attualmente composto da 5 ricercatori, 4 post-doc, 2

2004 - OGGI	dottorandi e 1 tecnologi (5.1 FTE). Negli ultimi 5 anni la consistenza del gruppo si è sempre mantenuta al di sopra dei 5 FTE.
	In quanto Responsabile Locale di CUORE amministro i fondi necessari alla costruzione ed al funzionamento dell'esperimento ai LNGS per una media di circa 500k€/anno negli ultimi 10 anni.
2004 - 2012	GLIMOS (Group Leader in Matter of Safety) dell'esperimento CRESST
2000 - 2008	Responsabile del funzionamento e della conduzione delle misure che si svolgono nel criostato di CRESST
2000 - OGGI	GLIMOS (Group Leader in Matter of Safety) dell'esperimento CUORE

Articoli e Presentazioni

CONFERENZE

H-INDEX Autore di oltre 200 articoli su riviste con referee, con un h-index pari a 45 (ISI Web of Knowledge).

Presentazioni a svariate conferenze internazionali quali ad esempio: TAUP 1997 (Topics of Astroparticle and Underground Physics), TAUP 2005, TAUP 2015, LTD-6 (Low Temperature Detectors), LTD-7, LTD-8, LTD-9, LTD-10, IDM 2006 (Identification of Dark Matter), NOW 2010 (Neutrino Oscillation Workshop), etc.

REVIEW Autore di rassegne su invito in alcune conferenze e scuole quali ad esempio:

IFAE2010 (Incontri di Fisica delle Alte Energie) - review sperimentale sulla ricerca di Materia Oscura

BEACH 2010 (International Conference on Hyperons, Charm and Beauty Hadrons) - review sulla ricerca di Doppio Decadimento Beta senza emissione di neutrini

CFA - Double Beta Decay lectures - lezione sullo stato e le prospettive future sulla ricerca di Doppio Decadimento Beta senza emissione di neutrini

CSQCD V (Compact Stars in the QCD phase diagram V) - review sulla ricerca di Doppio Decadimento Beta senza emissione di neutrini LTD17 (Low Temperature Detectors) - invited talk on large cryogenic systems

REFEREE

Referee per European Physical Journal A, Journal of Low Temperature Physics, Nuclear Instruments & Methods In Physics Research A e Nuclear Physics B.

ORGANIZZAZIONE CONFERENZE

NPA IV: XXII International Nuclear Physics Divisional Conference of the European Physical Society - Nuclear Physics in Astrophysics IV LNF & LNGS - June 8-12, 2009 http://npa4.lngs.infn.it

WIN 09: 22nd International Workshop on Weak Interactions and Neutrinos Perugia - September 14-19, 2009 http://win09.lngs.infn.it

LRT 2013: Topical Workshop in Low Radioactivity Techniques LNGS - April 10-12, 2013 http://lrt2013.lngs.infn.it

INPC 2013: 25th International Nuclear Physics Conference Firenze (Italy) - June 2-7, 2013 http://www.pd.infn.it/inpc2013/

SOUP 2022: 2nd INFN School On Underground Physics LNGS - June 20-24, 2022 https://agenda.infn.it/event/30174/

Commissioni di Concorso

2021 - 2023 Membro della commissione esaminatrice biennale per gli AdR dei LNGS.

2009 - 2011 Membro della commissione esaminatrice biennale per gli AdR dei LNGS.

2007 Membro di due commissioni per l'assegnazione di posizioni di CTER.

Membro della commissione per l'assegnazione di otto borse di studio per laureati nell'ambito del programma P.O.R. Abruzzo 2000-2006.

Tutoraggio e Supervisione

P. Gorla: Correlatore della tesi di Laurea in Fisica dal titolo: "Ricerca di decadimento beta doppio mediante schiere di rivelatori bolometrici di grande massa"

Università degli Studi di Milano

2006 L. Gironi: Correlatore della tesi di Laurea in Fisica dal titolo: "Studio dei contributi della radioattività ambientale e dei materiali al fondo dell'esperimento CUORE"

Università degli Studi di Milano

A. Giachero: Advisor della tesi di Dottorato in Fisica Nucleare e Subnucleare dal titolo: "Characterization of cryogenic bolometers and data acquisition system for the CUORE experiment"

Università degli Studi di Genova

2009 M. Biassoni: Correlatore della tesi di Laurea Magistrale in Fisica dal titolo "Studio comparativo di tecniche per la riduzione del fondo

radioattivo alfa, in vista dell'esperimento CUORE, svolto per mezzo di un rivelatore bolometrico modulare di TeO_2 " Università degli Studi di Milano Bicocca

C. Salvioni: Membro della commissione di Dottorato in Fisica per la tesi dal titolo: "Optimization of the Single Module of Detection for the CUORE-0 Experiment"

Università degli Studi dell'Insubria

2011 L. Pattavina: Membro della commissione di Dottorato in Fisica e Astronomia per la tesi dal titolo: "Radon-induced surface contaminations in neutrinoless double beta decay and dark matter experiments"

Università degli Studi di Milano Bicocca

- A. Puiu: Correlatore della tesi di Laurea Magistrale in Fisica dal titolo:
 "Metodi di abbattimento delle contaminazioni superficiali in
 esperimenti bolometrici"
 Università degli Studi di Milano Bicocca
- D. Santone: Relatore della tesi di Dottorato in Scienze Fisiche e Chimiche dal titolo: "Pulse shape analysis of CUORE bolometers for a better comprehension of the detector response" Università degli Studi dell'Aquila
- I. Nutini: relatore della tesi di Dottorato in Astroparticle Physics dal titolo: "The CUORE experiment: detector optimization and modelling and CPT conservation limit"

 Gran Sasso Science Institute
- G. Fantini: relatore della tesi di Dottorato in Astroparticle Physics dal titolo: "Search for double beta decay of ¹³⁰Te to the 0+ states of ¹³⁰Xe with the CUORE experiment"

 Gran Sasso Science Institute

2020 S. Di Lorenzo: relatore della tesi di Dottorato in Astroparticle Physics dal titolo: "Multiple detector analysis in the CRESST Dark Matter experiment"

Gran Sasso Science Institute

2005-2013 Supervisore di quattro Assegnisti di Ricerca (M. Olmi, L. Canonica, A. D'Addabbo e P. Gorla) e due borsisti tecnologi (A. Giachero e C. Zarra)

2004 - OGGI Supervisore di numerosi Summers Students partecipanti a programmi di scambio internazionali (INFN-DOE, Fondi FAI, INFN-IHEP.CAS) o provenienti da importanti Università e Instituti Internazionali (University of California Berkeley, University of Chicago, Cal Poly, Berkeley Lab, Boston college, Tata Institute - Mumbai, Shanghai University)

Attività di Ricerca

La mia attività scientifica è principalmente rivolta alla ricerca del Doppio Decadimento Beta senza emissione di neutrini (DDB0v) negli esperimenti Cuoricino e CUORE (con rivelatori di TeO_2), ed alla ricerca di WIMPs come componenti della Materia Oscura con l'esperimento CRESST (con rivelatori di Al_2O_3 e $CaWO_4$). I due filoni di ricerca sono accomunati dall'utilizzo di rivelatori bolometrici.

Nell'ambito degli esperimenti ai quali partecipo, la mia attività sperimentale si è principalmente rivolta allo sviluppo e all'ottimizzazione di rivelatori bolometrici innovativi ed alla criogenia.

PERSONAL INFORMATION

Antinisca Di Marco

Dipartimento DISIM, via Vetorio snc, Coppito, 67100 L'Aquila

+39 0862433178

antinisca.dimarco@univaq.it

https://www.disim.univaq.it/AntiniscaDiMarco

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 -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, Contextawareness, Adaptive systems, Bioinformatics and eHealth Systems.

Sept. 2006 - March 2007

Post-Doc Fellow

Computer Science Department, University of L'Aquila (Italy).

<u>Business or sector</u> 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).

<u>Business or sector</u> Expert of Software and Performance Engineering, Context-awareness, Software Modeling.

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

<u>Business or sector</u> Expert of Software and Performance Engineering, Context-awareness, Software Modeling.

Duration: 1 month

Invitation letter signed on 27th of February 2012

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

<u>Business or sector</u> Expert of Software and Performance Engineering, Context-awareness, Software Modeling.

<u>Duration</u>: 6 months

Contract details: contract signed on March 18th, 2015 - appointment dates: 07 March 2005 - 06 September 2005

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)

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)

womENcourage™ 2026 Computer Science - ACM Celebration of Women in Computing, Antibes, France.

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)

Track co-chair Track 5 – Healthcare and Well-being in Cities of the IEEE Smart Cities Conference ISC2 (https://sway.cloud.microsoft/bQbSr6Jm0DLE6oyb)

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

Workshop (Selection) Chair 20th IEEE Int. Conference on Pervasive Computing and Communication (PERCOM2022), Pisa, Italy (https://percom.org/PerCom2022/organizing-committee/)

Poster Chair womENcourage™ 2025 Computer Science: a Catalyst for Educational Change - ACM Celebration of Women in Computing (https://womencourage.acm.org/2025/index.php/our-team/)

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 20th IEEE Int. Conference on Pervasive Computing and Communication (PERCOM 2022),
Member Pisa, Italy

Panel Chair ITADATA 2024 - The 3rd Italian Conference on Big Data and Data Science (https://www.itadata.it/2024/committees)

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

SCIENTIFIC PROGRAM COMMITTEE

Main Recent Conferences ACM International Conference on the Foundations of Software Engineering (FSE) 2026.

IEEE/ACM International Conference on Automated Software Engineering (ASE) 2024 and 2025.

ACM/SPEC International Conference on Performance Engineering (ICPE 2017, 2020, 2021, 2022, 2024 and 2025)

International Conference on Fundamental Approaches to Software Engineering (FASE2023 and FASE 2025)

3rd Intelligent Systems for Digital Era (ISDE) track at 40th ACM/SIGAPP Symposium On Applied Computing – ACM SAC 2025 (https://ati.ttu.ee/sac-isde/#people)

Discovery Science 2024 - 27th International Conference on Discovery Science 2024, SoBigData track

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

Tools and Demos track of the 17th European Conference on Software Architecture (ECSA2023 and 2024)

International Conference on Perspectives in Business Informatics Research (BIR 2023 and 2024)

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

JOURNAL AND BOOK EDITORIAL BOARD, REVIEW SERVICE

Editorial Board

Guest Editor for the Special Issue on ACM/SPEC ICPE 2023 for Performance Evaluation, Elsevier Journal.

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).

Special Issues Editor

Special issue on ACM/SPEC ICPE 2023, Antinisca Di Marco, Peter Tuma. July 2024, Performance Evaluation Journal.

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

Book Editor

Editor of the Springer book "Actions for Gender Balance in Informatics Across Europe", October 2024 (To Appear)

Journal Committee

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

TUTORIAL, INVITED SPEAKER AND PHD SCHOOL COURSE

Tutorial in conferences

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@International

"Diversity and inclusion: training activities of SoBigData EU Research Infrastructure". Antinisca Di Marco, **Keynote at Diversity & Inclusion in Education Workshop** co-located

/enues with ECSS 2024 - European Informatics Leaders Summit, October 2024, Malta. (https://www.informatics-europe.org/ecss/program/schedule.html)

"Sustainable AI: a quality engineering perspective". Antinisca Di Marco. Invited Speakers at Al Gap: Algorithmic Biases in Artificial Intelligence from Interdisciplinary Perspectives International Workshop (https://aigap.di.unipi.it/participants/), Pisa and L'Aquila, Nov. 2023.

"COST Action - CA19122 European Network For Gender Balance in Informatics" Antinisca Di Marco, **Invited talk** at **International Conference on Performance Engineering 2023**, Coimbra, April 2023. (https://icpe2023.spec.org/program/detailed-program/)

"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.

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

"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**.

PhD. School Lecturer

Antinisca Di Marco, Andrea Bianchi. Analyzing health data: from genomic to clinical data. (2 hours). **2**nd **International SoBigData Summer School Empowering Data for Social Good.** 16-22 June 2024. Resort Poggio all'Agnello Baratti – TUSCANY (Italy) (https://summerschool2024.sobigdata.eu/)

Antinisca Di Marco. Research projects: from proposal writing to management. **PhD Course of 4 hours. Doctoral Program in Information and Communication Technology**. Università degli Studi dell'Aquila (Italy)

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

Speaker of the panel: "The role of HCI research in promoting gender-inclusive computing practices and technologies". Second International Workshop of the ACM-SIGCHI Mediterranean Committee (MedCHI), co-located with ACM womENcourage 2024, Madrid, Spain, June 27th 2024.

Moderator and speaker of the Panel "II 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/II-Cloud-Sovrano-Sviluppo-del-digitale-eriservatezza-dei-dati-di-cittadini-e-imprese)

NATIONAL AND INTERNATIONAL AWARDS AND RECOGNITIONS FOR RESEARCH ACTIVITIES

Awards for scientific paper

Best Paper Award at the First International Workshop on Fairness in Software Systems (Fairness'2025), a Saner2025 conference's workshop: How Do Generative Models Draw a Software Engineer? A Case Study on Stable Diffusion Bias. T. Fadahunsi, G d'Aloisio, A Di Marco, F Sarro.

<u>The ten-year most influential regular paper award 2024</u> at the MODELS conference 2024: An approach for modeling and detecting software performance antipatterns based on first-order logics. Vittorio Cortellessa, Antinisca Di Marco & Catia Trubiani. In: Journal on Software and Systems Modeling (SoSyM), Volume 13, Issue 1, pp. 391–432, Springer, February 2014. https://doi.org/10.1007/s10270-012-0246-z

<u>Best Paper Award:</u> Echocardiographic Epicardial Adipose Tissue Quantification: Challenges and Insights. Authors: Payel Patra, Andrea Bianchi, Daniele Di Pompeo, Antinisca Di Marco. Third International Workshop on Negative Results in Pervasive Computing, PERFAIL 2024.

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.

<u>Best Poster Award</u>: 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.

<u>Best Paper Candidate</u>: 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

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

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

ACM recognition award in appreciation for contributions to ICPE2019.

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

Grants for scientific recognition obtained from competitive calls

Azure Microsoft Research Award May 2016 for the DIANA project (\$20.000 for MS Azure use)-Gifting Letter for Microsoft Azure Research Award CRM:0518943 - 10 maggio 2016

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

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

Univaq Scientific Coordinator: DIRECT: Digital twlns foR EmergenCy support - Innovation Grant (18 months of project, € 57.500,00 € for University of L'Aquila) - Acceptance letter from ICSC Foundation in date 24 October 2023.

The aim of the project is to realize a multi-functional Digital Twin (DT) of a urban district integrating Building Information Models (BIM) to monitor and predict the impact of natural or anthropic disasters on people, buildings and the environment.

PARTNERS: SOGEI, University of Salento (Spoke 9), University of Milano-Bicocca (Spoke 9), University of L'Aquila (Spoke 5), CNR IGAG (Spoke 5)

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". Since 2024 she is also WP4 leader.

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.

<u>PARTNERS</u>: 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.

<u>PARTNERS</u>: 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

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 crossdisciplinary 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.

<u>PARTNERS</u>: 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

2025 Expert evaluator for Regione Puglia

Since 2016 External Expert for the European Commission

2017 External Expert (Evaluator) for COST Association [http://www.cost.eu/]

2016 Evaluator for Universita' degli Studi di Sassari - Call for proposals 2015-Research Projects -Fondazione di Sardegna

Ph.D. STUDENTS **SUPERVISING**

Advisor of Francesco Gallo (2009-2013, University of LAquila)

Past Ph.D. Students

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.

Advisor of Andrea Bianchi(November 2020-September 2024, University of LAquila). He worked on Bioinformatics pipelines for copy number variation and on differential genes expression. He also worked on an innovative trustworthy machine learning approach for multimodal health data to improve personalized medicine.

Advisor of Giordano D'Aloisio (November 2021 – April 2025, University of LAquila). He worked 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, accuracy and execution time.

Current Ph.D Students

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 the information retrieval research domain, devising novel unsupervised document ranking approaches based on Large Language Models (LLMs) such as OpenAl's GPT and Google's BERT.

Co-Advisor of Lorenzo De Tomasi (Started on November 2024, University of L'Aquila). He is working on LLM exploitation and prompting to security aspects.

PARTICIPATION TO DOCTORAL BOARDS AND EVALUATION COMMITTEE

from Doctoral cycle XXVIII to Doctoral cycle XL		
	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.	
September 2025	Member of the Evaluation Committee of the final exam Doctorate in Computer Science – 2025 year , UNIVERSITY OF LA SAPIENZA – ROME, Italy	
September 2024- December 2024	External reviewer of Valentina Tessoni 's PhD Thesis, Candidate of Dottorato di Ricerca in "TECNOLOGIE DELL'INFORMAZIONE" (ciclo XXXVI), Università degli Studi di Parma.	
February 2024	Member of the Evaluation Committee of the final exam Doctorate in Computer Science - XXXVI cycle , UNIVERSITY OF MILAN – BICOCCA, Italy	
June 2023-January 2024	External reviewer of Marco Marcozzi's PhD Thesis, Candidate of "Computer Science and Mathematics," School of Advanced Studies, Università di Camerino.	
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

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

Oct 2021-present

Member of the steering committee of the CINI Systems and Services Quality Working Group. The Working Group aims to make available its cultural, scientific heritage and established experience in developing methodologies and approaches to maintain the required levels of quality of IT services. (https://www.consorziocini.it/index.php/it/gdl/system-and-service-quality)

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 specialization sTrategies in Health, Industry and Cybersecurity
- LIFEMAP: DALLA PATOLOGIA PEDIATRICA ALLE MALATTIE CARDIOVASCOLARI E NEOPLASTICHE NELL'ADULTO

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
- DIRECT: Digital twlns foR EmergenCy support Innovation Grant

AFFILIATION TO RESEARCH CENTERS OR INSTITUTIONS

from 2012 to 2014 **External collaborator** of the SENSO LAB at the Middlesex University, London, U.K.

Member of Smart Cities & Communities CINI Laboratory, CINI Laboratory Since its establishment

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 publications please refer to the following links:

https://www.scopus.com/authid/detail.uri?authorld=7005795661 Scopus

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

a.y. 2024-2025

Programming Fundamentals (6 CFU - 60 hours) - Bachelor course in Computer 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 Radio-diagnostics – University of L'Aquila

Computer Basics (1 CFU – 4 hours) – in first year of Specialization Schools in Oncology – University of L'Aquila

Research projects: from proposal writing to management - (4 hours) course in the Doctoral Program in "INGEGNERIA E SCIENZE DELL'INFORMAZIONE" - University of L'Aquila, L'Aquila, Italy.

Abstract: The course will present the process to follow and the main tools that can be used for project management.

Key concepts (such as methodology, risk management, key performance indicators (KPI), KPI monitoring strategies, work packages, milestones, and deliverables) will also be introduced. Moreover, a real example of how to read a call and write a proposal responding to it will be presented.

Schedule: 1day/4 hours, March 2025

Didattica della Programmazione (3 CFU - 18 hours) - course in Percorso universitario iniziale di formazione dei docenti secondari - Classe A 41 - Scienze e tecnologie informatiche and Classe B 16 -Laboratorio di scienze e tecnologie informatiche

a.v. 2023-2024

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 the first year of Specialization Schools in Radiology Therapy and in Radio-diagnostics – University of L'Aquila

Computer Basics (1 CFU - 4 hours) - in the first year of Specialization Schools in Oncology University of L'Aquila

Computer Science (2 CFU - 8 hours) - in the first year of Specialization Schools in Neurology and in General Surgery – University of L'Aquila

Research projects: from proposal writing to management - (4 hours) course in the Doctoral Program in "INGEGNERIA E SCIENZE DELL'INFORMAZIONE" - University of L'Aquila, L'Aquila, Italy.

Abstract: The course will present the process to follow and the main tools that can be used for project management.

Key concepts (such as methodology, risk management, key performance indicators (KPI), KPI monitoring strategies, work packages, milestones, and deliverables) will also be introduced. Moreover, a real example of how to read a call and write a proposal responding

to it will be presented.

Schedule: 1day/4 hours, 12th April 2024

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.v. 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 15 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

December 2024- today	Member of Multidisciplinary Internal Review Board (MIRB), Nominated vice-president since march 14th 2025: https://www.univaq.it/section.php?id=1531⟨_s=it
October 2024 - today	Equal opportunities representative of the DISM department.
March 2024-today	Representative of the University of L'Aquila in the Assembly of European Open Science Cloud Association – D.R. n. 222/2024 Prot. N. 36253
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.
26.09.2023-30.09.2025	Member of the Scientific Advisory Board of CeTemps Center of Excellence , University of L'Aquila, Italy. Decreto Rettorale Rep. n. 1090 prot. n. 105623 del 26.09.2023
Jan 2024-Oct 2024	2024 Minerva Informatics Equality Award Committee Chair . Informatics Europe. https://www.informatics-europe.org/society/minerva-informatics-equality-award/2024.html
Jan. 2023- Oct. 2023	2023 Minerva Informatics Equality Award Committee Member . Informatics Europe (https://www.informatics-europe.org/society/minerva-informatics-equality-award/2023.html).
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 (https://territoriaperti.univaq.it/master/)
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'Aguila, 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.

26 October 2023

Nomina Presidente della Commissione giudicatrice per Gara europea a procedura aperta per la fornitura di sistemi di calcolo ad alte prestazioni - D.D.G. n. 782/2023, Prot. n. 116737 del 26/10/2023

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 (05.4).

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**

07.03.2024-present

Representative of the University of L'Aquila in the Assembly of European Open Science Cloud Association - D.R. n. 222/2024 Prot. N. 36253

25.05.2022-october

2024

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.

(https://www.cost.eu/actions/CA19122/#tabs+Name:Working%20Groups%20and%20Membership)

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'Aguila 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 2024 June 2024, L'Aquila, Italy.

Organizing Committee co-Chair: Final Contest of Pinkamp - Le ragazze contano! Edition 2023 @Street Science - September 2023, L'Aquila, Italy.

Organizing Committee co-Chair: Final Contest of Pinkamp - Le ragazze contano! Edition 2022 @Street Science 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, (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 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 (no scientific ones)

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

Curriculum Vitae Sandra Parlati

PERSONAL INFORMATION

Sandra Parlati



sandra.parlati@lngs.infn.it

WORK EXPERIENCE

2022-Present Responsible of the LNGS HPC4DR computing infrastructure as part of the ICSC Italian Research

Center on High Performance Computing, Big Data and Quantum Computing financed with 319MEuro by the Italian Ministero dell'Università e della Ricerca (MUR) in the framework of the PNRR National Recovery and Resilience Plan.

Responsible of the personnel and activities financed by the ICSC project at LNGS site.

2022-Present Coordinator of the OR3 "Data and digital infrastructures" of the LNGS-Future Project financed with

20MEuro by the Italian Ministero dell'Università e della Ricerca (MUR) in the framework of the

PNRR National Recovery and Resilience Plan.

Responsible of the personnel and activities financed by the OR3 of the LNGS-Future project.

2019-Present Contact person of the OR1 "Optical Fiber infrastructure" for the PON FARO2030 Project financed with 18.4MEuro by the Italian "Ministero dell'Istruzione, dell'Università della Ricerca (MIUR)

Responsible of the personnel and activities financed by the OR1-fibra of the PON FARO2030

project.

1/06/2005 – Present Head of the Computing and Network Service

Gran Sasso National Laboratories - LNGS

The Italian National Institute for Nuclear Physics (INFN)

L'Aquila (Italy)

Computing and Network infrastructures: design, implementation and management; Scientific computing and support to LNGS experiment's communities; HTP and HPC; cybersecurity and personal data protection; general IT services and LNGS user support; staff selection and recruitment; procurement procedures for Hardware and software; teaching and training activities as well as outreach activities.

Senior technologist

01/2020 - Present Gran Sasso National Laboratories - LNGS

The Italian National Institute for Nuclear Physics (INFN)

L'Aquila (Italy)

www.lngs.infn.it

Technological Research on field of Computing and Network Infrastructures, Scientific computing,

HTC and HPC, IT services.

12/2001 – 12/2019 **Technologist** - permanent position

IT Division - Gran Sasso National Laboratories

The Italian National Institute for Nuclear Physics (INFN)

L'Aquila (Italy) www.lngs.infn.it

Technological Research on field of Computing and Network Infrastructures, Scientific computing,

HTC and IT services.

03/1997 – 12/2001 Technologist - term contract

IT Division - Gran Sasso National Laboratories - INFN

L'Aquila (Italy)

Technological Research on field of Scientific computing, HTC, IT services.

euro*pass* Curriculum Vitae Sandra Parlati

11/1995 - 01/1996 Computer Officer

University of Lecce (Italy) and Gran Sasso National Laboratories - INFN

Data management for the MACRO experiment

02/1995 – 07/1995 Term Contract in Research Project

University of Pisa (Italy) and INFN Pisa

Measurement of the characteristics of the PMT used in th CHOOZ experiment

09/1992 – 12/1994 Computer Officer

California Institute of Technology and INFN

Management of the DAQ and analysis cluster of the MACRO experiment; data management

EDUCATION AND TRAINING

5/1996- 03/1997 Research Fellowship

CNR Istituto di Cosmogeofisica – Turin (Italy)

Development of the event display of the ICARUS experiment.

09/1991- 09/1992 Research Fellowship

INFN and Digital Equipment Corporation

Study of the Ethernet and FDDI local area networks

06/1991 – 09/1991 Summer student

Gran Sasso National Laboratories (INFN)

Data managent and reduction for the MACRO experiment

11/1985- 03/1991 Graduation in Physics with full marks (110/110)

University of Turin - Turin (Italy)

PERSONAL SKILLS

Mother tongue(s) Other language(s)

English French Italian

UNDERSTANDING		SPEAKING		WRITING	
	Listening	Reading	Spoken interaction	Spoken production	
	B1	B2	B1	B2	B2
	A2	B1	A2	A2	A2

Communication skills

Excellent communication skills built in a variety of professional and non-professional contexts, including:

- coordination of large working teams
- contacts with students and teachers for organization of courses and schools
- Outreach skills gained in various presentations for educational purposes in schools and in the occasion of public events and other third mission activities

Organisational / managerial skills

Outstanding skills for organizing team work (refined in almost 17 years spent in the management of team of up to 10 people)

Excellent organizational skills with long-term experience in activity planning, personnel training, as well as in maintenance, upgrading and acquisition of technical equipment and infrastructures.

Capability to solve problems and negotiate solutions.

Computer skills

OS: VMS, Unix/Linux, Windows, MacOS Programming languages: C/C++, Fortran, Perl Curriculum Vitae Sandra Parlati



COMMISSION OF TRUST

 Since 2001 Representative of the Gran Sasso Natinal Laboratories and INFN L'Aquila inside the "INFN National Computing and Network Commission" Italy

- Since 2005 Sole Project Manager for all procurement procedures for IT Hardware and software Laboratori del Gran Sasso INFN
- Since 2007 Member and President of several Panel for the selection of Personnel at Laboratori del Gran Sasso and other INFN sites – Italy
- Since 2013 Referee of the "R&D Projects" of the "INFN National Computing and Network Commission" Italy
- Since 2016 "LHCOne site contact" for LNGS in the context of the worldwide LHCOne network
- 2017 Reviewer of the IEEE Nuclear Science Symposium" for the section "Computing and Software and Software Reliability".
- Since 2019 "Local representative in matter of Personal Data Protection" of Gran Sasso National Laboratory - INFN
- Since 2007 Member and President of several Tender Committee for INFN Italy
- Since 2022 member of the Scientific Committee of the HPC4DR ("High Performance Computing for Disaster Resilience") Consortium
- Since 2019, sole manager of the procurement Procedure for PON FARO2030 project
- Since 2022, sole manager of the procurement Procedure for INFN national projects (ICSC)
- Since 2022, sole manager of the procurement Procedure for LNGS-Future Project, WP3
- Since 2020, LNGS representative inside the INFN National Assembly of the Researchers and Technologists.

Publications

Author and co-author of more than 60 scientific papers

- Scopus h-index: 33, Paper:66, citations:10813; Inspire h-index: 37, Paper:71, citations: 11203
- Recent publications:
- Accurate GPS-based timestamp facility for Gran Sasso National Laboratory DOI: 10.1088/1748-0221/14/04/P04001
- U-LITE, a Private Cloud Approach for Particle Physics Computing DOI: 10.4018/IJCAC.2019010101

Personal data

I hereby authorize the use of my personal data in accordance to the GDPR 679/16 - "European regulation on the protection of personal data".

L'Aquila 01/06/2023 Sandra Parlati