

PERSONAL INFORMATION Nicola Conci

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input checked="" type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

1 May 2018–Present Associate Professor

University of Trento, Trento (Italy)

Associate Professor with the Department of Information Engineering and Computer Science, at the Multimedia Signal Processing and Understanding Lab (MM-Lab).

- 1. Coordinator** of the M.Sc Degree in Information and Communications Engineering
- 2. Local Coordinator** of the EIT Digital double degree in Visual Computing and Communications
- 3. Executive Committee member** of the Ph.D School in Information and Communication Technology

Current Teaching Activities:

Computer Vision, M. Sc degrees in Information and Communication Eng, Artificial Intelligence Systems, Computer Science, Mechatronics (2009,-)

Segnali, Visione, Riconoscimento, B.Sc Degree in Information, Communications, Electronics Engineering (2021,-)

Trasmissione e Codifica di Segnali Digitali, B.Sc Degree in Information, Communications, Electronics Engineering (2021,-)

1 Nov 2009–30 Apr 2018 Assistant Professor

University of Trento, Trento (Italy)

Assistant Professor at the Department of Information Engineering and Computer Science, in the MultiMedia Signal Processing and Understanding Lab (MM-Lab).

May 2008–Jul 2009 Post-Doc Researcher

Queen Mary University of London, London (United Kingdom)

Post-doc researcher within the Multimedia and Vision research group.

Research topic: Video Coding for Visual Surveillance applications

EDUCATION AND TRAINING

- 1 Nov 2004–30 Oct 2007 **Ph.D- Doctor of Philosophy**
University of Trento, Trento (Italy)
- 2002–2004 **M.Sc Degree in Telecommunications Engineering**
University of Trento, Trento (Italy)

PERSONAL SKILLS

- Mother tongue(s) Italian
- FOREIGN LANGUAGE(S) English (proficient user), German (A2), Spanish (B1)
- Organisational / managerial skills
- Currently leading a research group of 7 people
 - Supervised 9 Ph.D Students
 - Supervised about 100 M.Sc and B.Sc theses
- Publications A comprehensive list of publications is available at: <https://scholar.google.it/citations?user=mR1GK28AAAA&hl=it>
- Selected publications:
- [1] Garau, N., Fruet, D., Luchetti, A., De Natale, F., & Conci, N. (2022). A multimodal framework for the evaluation of patients' weaknesses, supporting the design of customised AAL solutions. *Expert Systems with Applications*, 202, 117172.
 - [2] N. Bisagno, C. Saltori, B. Zhang, F.G.B. De Natale, N. Conci. Embedding group and obstacle information in LSTM networks for human trajectory prediction in crowded scenes. *Computer Vision and Image Understanding*, 203, art. no. 103126, 2021.
 - [3] N. Garau, F.G.B. De Natale, N. Conci. Fast automatic camera network calibration through human mesh recovery, *Journal of Real-Time Image Processing*, 17 (6), pp. 1757-1768, 2020
 - [4] K. Ahmad, M.L. Mekhalfi, N. Conci, F. Melgani, F. De Natale. Ensemble of Deep Models for Event Recognition. *ACM Transactions on Multimedia Computing, Communications and Applications*, 2018
 - [5] E. Sansone, K. Apostolidis, N. Conci, G. Boato, V. Mezaris, F. De Natale. Automatic Synchronization of Multi-user Photo Galleries. *IEEE Transactions on Multimedia*, 2017; vol. 19, p. 1285-1298
 - [6] K.R Konda, N. Conci, and F.G.B. De Natale, "Global coverage maximization in PTZ camera networks based on visual quality assessment", *IEEE Sensors*, 2016
 - [7] P.V.K. Borges, N. Conci, and Andrea Cavallaro, "Video-based human behavior understanding: a survey", *IEEE Trans. on Circuits and Systems for Video Technology*, November 2013
 - [8] N. Garau, N. Bisagno, Z. Sambugaro, N. Conci "Interpretable part-whole hierarchies and conceptual-semantic relationships in neural networks." *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*. 2022.
 - [9] N. Garau, N. Bisagno, P. Bródka, N. Conci "DECA: Deep viewpoint-Equivariant human pose estimation using Capsule Autoencoders." *Proceedings of the IEEE/CVF International Conference on Computer Vision*. 2021.
 - [10] A. Zaeemzadeh, N. Bisagno, Z. Sambugaro, N. Conci, N. Rahnavard, M. Shah "Out-of-Distribution Detection Using Union of 1-Dimensional Subspaces." *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*. 2021.
 - [11] N. Bisagno, B. Zhang, and N. Conci. Group LSTM: Group Trajectory Prediction in Crowded Scenarios. *European Conference on Computer Vision Workshops*. Springer, Cham, 2018.
 - [12] D. Conigliaro, P. Rota, F. Setti, C. Bassetti, N. Conci, N. Sebe, M. Cristani, "The S-HOCK dataset: Analyzing crowds at the stadium", *IEEE CVPR* 2015.
- Relevant Projects
- StreamOut s.r.l. (co-funded by the Province of Trento, LP6/99) [2020-2022]. Implementation of audio-video summarization tools. *PI, R&D in computer vision and audio processing*.

- MAS-Tech s.r.l. [2020] – Implementation of video analytics for automatic match analysis in tennis. *PI, R&D in Computer Vision.*
- ANTEMOTION (co-funded by the Province of Trento, LP6/99) [2018-2020]. Implementation of a fully functional simulation framework in the autonomous driving domain, to assess the car performance, the sensing equipment, the comfort of the car cockpit. *PI, Proposal co-writer, R&D in video analysis, graphics and simulation*
- TRAMA (co-funded by the Province of Trento, LP6/99) [2018-2020]. Coordinated by ARCODA, creation of an augmented reality framework to improve the workflow of the maintenance processes in the context of utility management. *PI, Proposal co-writer, R&D in video analysis, computer graphics and simulation.*
- AUSILIA (funded by the Province of Trento) [2016-2021]. Realize a territorial laboratory that integrates an open research environment and innovation with a hospital clinical service in the administration of aids in motor and cognitive disabilities. *R&D in Computer Vision.*
- UNCAP – PHC20 Horizon 2020 [2015-2017] – Active ageing, development of solutions for new care & assistance paradigms with global interconnection and interworking. *Proposal co-writer, Local Coordinator (for UNITN), R&D in video analysis and behavior understanding.*

Awards

- Best demo Award. Co-recipient of the best demo award at the national GTTI-MMSP workshop 2020, with the demo “Real-time stitching and Tactical Camera”, by Niccolò Bisagno, Nicola Garau, Andrea Montagner, and Nicola Conci
- Best demo Award. Co-recipient of the best demo award at the national GTTI-MMSP workshop, with the demo “RoboEye: a wheelchair plugin for mobility enhancement” by Malvina Leuci, Luca Maule, Alberto Fornaser, Mariolino De Cecco, Alfredo Armanini, Nicola Conci, Francesco De Natale
- Excellent paper award (top 3) at the IEEE/ACM International Conference on Distributed Smart Cameras (ICDSC 2013) for the paper “Optimal configuration of PTZ camera networks based on visual quality assessment and coverage maximization” by K. R. Konda and N. Conci

Invited Talks

- N. Conci and F. De Natale, "AI-based modeling of individual and crowd behavior for prediction and simulation", NATO NMSG, Copenhagen, 2019.
- N. Conci, "AI-based modeling of individual and crowd behavior for prediction and simulation", Vinsmart and USTH Hanoi, 2019.
- N. Conci, “Videosurveillance and ambient intelligence”, Malnisio Science Festival, 2018.
- N. Conci, H. Ullah, “Crowd Monitoring and Activity Analysis in Large Scale Events”, EIT summer school, 2013
- N. Conci, “Towards high-level analysis of human interactions”, ICE Ph.D School, Loano (Italy), September 2012.
- Conci N. and Sebe N., “Human Behavior Analysis”, Tutorial at IEEE ICIP 2010, Hong Kong.

Trento, 21/07/2022

PERSONAL INFORMATION **Libertario Demi**

[Head and Founder of the Ultrasound Laboratory Trento – ULTRa – IEEE Senior Member]

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<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

From 04-2021 – current position - Associate Professor

University of Trento, Trento Italy

Department of Information Engineering and Computer Science

Main field of research: lung ultrasound, Ai and model based image analysis, image formation, signal processing, advanced beam forming techniques for ultrasound imaging, ultrasound propagation modeling, nonlinear acoustics

From 04-2022 to 05-2022 - Visiting Professor

Stanford University, United States of America

Department of Radiology, Ultrasound Imaging and Instrumentation Lab

Lecture Series on Lung Ultrasound

From 04-2018 to 04-2021 - Assistant Professor (Rtd-B)

University of Trento, Trento Italy

Department of Information Engineering and Computer Science

Main field of research: lung ultrasound, Ai and model based image analysis, image formation, signal processing, advanced beam forming techniques for ultrasound imaging, ultrasound propagation modeling, nonlinear acoustics

From 02-2018 to 09-2018 - University Researcher – Visiting Scholar

University of Twente, the Netherlands

Faculty of Applied Physics, Biomedical Photonic Imaging Group

Main field of research: Ultrasound tomography for breast cancer application, Laser induced ultrasound sensors design and fabrication

From 12-2016 to 04-02-2018 - Consultant

TMC Science and Technology, Zaventem, Belgium

Main field of research: MEMS sensor design and image-formation-algorithm development for SODAR applications in life science and integrated systems technology

From 12-2016 to 04-02-2018 - Ultrasound Research Scientist

IMEC, Leuven, Belgium

Department of Life Science

Main field of research: MEMS sensor design and image-formation-algorithm development for SODAR applications in life science and integrated systems technology

From 07-2012 to 04-12-2016 - Postdoc

Faculty of Electrical Engineering, Eindhoven University of Technology, the Netherlands

Signal Processing and Systems Group

Main field of research: Quantitative-ultrasound imaging for prostate cancer localization & mapping of inaccessible environments using an uncontrolled ultrasound-sensor swarm

From 07-2008 to 07-2012 - PhD

Delft University of Technology, the Netherlands
 Faculty of Applied Physics, Department of Imaging Physics
Main field of research: Modeling nonlinear propagation of ultrasound through inhomogeneous biomedical media, high frame rate ultrasound imaging, harmonic and super-harmonic imaging

From 02-2008 to 06-2008 - Research Assistant

University of Pisa
 Faculty of Information Engineering, Department of Imaging Physics
Main field of research: Automatic Target Recognition Algorithms applied to ISAR data

EDUCATION AND TRAINING

From July 2008 to March 2013 - PhD degree in Applied Physics, Delft University of Technology, the Netherlands

From September 2005 to February 2008 - Master's degree in Telecommunication Engineering, University of Pisa, Italy

From September 2002 – to March 2006 - Bachelor's degree in Telecommunication Engineering, University of Pisa, Italy

PERSONAL SKILLS

Mother tongue Italian

Other language(s) English

Main areas of Expertise: Lung ultrasound, signal processing, array technology, beam forming, sensor design, ultrasound imaging and image formation, image analysis, ultrasound propagation modeling and simulations, nonlinear acoustics, ultrasound physics, ultrasound contrast agents, medical ultrasound

ADDITIONAL INFORMATION

- **Lecturer** of the courses "Medical Imaging Diagnostics", "Digital Signal Processing", and "Ultrasound Technologies for Medical Applications" at the University of Trento Department of Information Engineering and Computer Science (since academic year 2018/19)
- Co-lecturer of the course "Medical Ultrasound" and "Biomedical Sensing Technology" at the Eindhoven University of Technology faculty of Electrical Engineering (academic year 2014/15 and 2015/16).
- Lecturer assistant of the course "Introduction to Technical Physics" at the Delft University of Technology, faculty of Applied Physics (academic year 2009/10 and 2010/11).
- **Associate Editor** of the Journal of The Acoustical Society of America, area Biomedical Acoustics
- **Editorial Board Member** of Applied Sciences (MDPI), Applied Biosciences and Bioengineering Section
- **Guest Editor** of the Special Issue on "Ultrasound in COVID-19 and Lung Diagnostics", on IEEE Transactions on Ultrasonics Ferroelectrics and Frequency Control 2020
- **Guest Editor** of the Special Issue on "Signal Processing and Image Analysis Techniques for Lung Ultrasound Imaging", on Applied Sciences 2019-20
- **Guest Editor** of the Special Issue on "Lung Ultrasound", on the Journal of the Acoustical Society of America 2020-2021
- **Member of the Medical Ultrasound Technical Program Committee** of the IEEE International Ultrasonics Symposium (since March 2021)
- **Technical Program Organizer** (representative for *Biomedical Acoustics*) for Meetings of the Acoustical Society of America (since May 2019)
- **Member of the Tutorial Committee** at the IEEE International Symposium of Biomedical Imaging, Kolkata, 28-21 March, 2022.
- **Hybrid chair** at the IEEE International Ultrasonics Symposium, Venice, Italy, 2022.
- **Program Committee member** at the 16th International Conference on Image Analysis and Recognition, Waterloo, Canada, 27-29 August 2019
- **Session chair** of multiple sessions at international meetings, such as the IEEE International Ultrasonics Symposium, Meeting of the Acoustical Society of America, the International Conference on Image Analysis and Recognition, International Symposium on Nonlinear Acoustics and the international conference of the IEEE Engineering in Medicine and Biology Society.

GRANTS

- European Institute of Innovation & Technology (EIT) Digital 2020 Grant for the project UltraON (2020/2021) – Role: Principal Investigator and Project Coordinator.
- Fondazione VRT COVID-19 Grant for the project COMPUTER-AIDED LUNG ULTRASOUND IMAGING FOR THE MANAGEMENT OF PATIENTS AFFECTED BY COVID-19 (2020) – Role: Principal Investigator.
- 5x100 Research Grant from the University of Trento for research activities on breast ultrasound imaging (2020-2021) – Role: Principal Investigator.
- External funding from the National Research Council for research activities on lung ultrasound imaging (2019-2021) – Role: Principal Investigator.
- Ateneo Starting Grant, 2018. Research grant from the University of Trento to carry out research activities on dedicated signal processing algorithms for lung ultrasound imaging (2018-19) – Role: Principal Investigator.

PUBLICATIONS

More than 140 peer-reviewed publications (82 international journal papers, 2 book chapters, 56 proceedings), 2 patents, 4 international best-poster awards, and many contributions to top international conferences, including invited talks. Full list available at <https://sites.google.com/view/drlibertariodemi/publications>

CITATIONS

- Data from Google Scholar (19-09-2022) - h-index = 30 - 3493 total citations
- Data from Scopus (19-09-2022) - h-index = 25 - 2405 total citations

Marco Roveri

CURRICULUM VITÆ ET STUDIORUM

PERSONAL DATA

QUALIFICATIONS

National Scientific Qualification. This award has been obtained based on scientific qualification criteria assessed and evaluated by a national (Italian) commission of full professors (March 2018).

The qualification has been awarded for the following areas and corresponding professional research and education positions:

01/B1 Sistemi di Elaborazione delle Informazioni (Information and Communication Technologies)

- Prima Fascia (Full Professor) <https://asn16.cineca.it/pubblico/miur/esito/01\%252FB1/1/4>
- Seconda Fascia (Associate Professor) <https://asn16.cineca.it/pubblico/miur/esito/01\%252FB1/2/4>

09/H1 Informatica (Computer Science)

- Prima Fascia (Full Professor) <https://asn16.cineca.it/pubblico/miur/esito/09\%252FH1/1/4>
- Seconda Fascia (Associate Professor) <https://asn16.cineca.it/pubblico/miur/esito/09\%252FH1/2/4>

This scientific qualification is mandatory for the new University Professor position recruiting procedures in Italy.

PhD in Computer Science. Obtained from the Computer Science Department of the University of Milano (January 2002).

PhD Thesis: “*Planning in Non-Deterministic Domains via Symbolic Model Checking*”. Work performed at *Istituto per la Ricerca Scientifica e Tecnologica* (ITC-irst) and at *Dipartimento di Scienze dell’Informazione* (Computer Science Department) of the University of Milano, Italy. The thesis considered *the development of novel algorithms and a software platform for planning under uncertainty on action outcome and under different degree of available information*.

Master in Computer Science Engineering. Obtained from the Computer Science Engineering faculty of the University of Genova, Italy. Score *110/110 Cum Laude*, and awarded as *worth publishing* by the thesis evaluation committee (January 1997).

Master Thesis: “*Meccanizzazione di Astrazione: Problematiche ed Applicazioni*” (Mechanization of Abstraction: Problems and Applications). Work performed at *Istituto per la Ricerca Scientifica e Tecnologica* (ITC-irst) and at *Dipartimento di Informatica Sistemistica e Telematica* (Computer Science Department) of the University of Genova. The thesis addressed the development of techniques for automated deduction and theorem proving in Artificial Intelligence.

WORK EXPERIENCE

- April 2020 - Today: *Assistant Professor - RTDb* at the Department of Computer Science Engineering of the University of Trento.
- June 2011 - February 2020: *Senior Researcher* with a permanent position at the Embedded Systems Unit of the Centre for Information Technology of Fondazione Bruno Kessler, Trento (Italia). This position corresponds to *Associate Professor* in the Italian academic setting.
- March 2009 - May 2011: *Junior Researcher* with a permanent position at the Embedded Systems Unit of the Centre for Information Technology of Fondazione Bruno Kessler, Trento (Italia).
- January 2004 - February 2009: *Junior Researcher* with a permanent position at the Automated Reasoning Division of ITC-irst (Istituto Trentino di Cultura- Istituto di Ricerca Scientifica e Tecnologica) in Trento - (Italia). Position achieved as outcome of a public selection issued by Istituto Trentino di Cultura.
- December 2001 - January 2004: *Junior Researcher* with a fixed-term position at the Automated Reasoning Division of ITC-irst (Istituto Trentino di Cultura- Istituto di Ricerca Scientifica e Tecnologica) in Trento - (Italia).
- October 1999 - March 2000: *Consultant* for ITC-irst. Worked on technology transfer for Invensys for the design of a controller for industrial conditioning systems using formal methods.
- 1994 - 1997: System Manager and Software Developer at Artificial Intelligence Lab of the Department of Computer Science of the University of Genova (Italia).
- July 1988 - August 1988: *Intern* at ANSALDO STS s.p.a. subsidiary in Genova for the development of a software package for customizing and extending the email management of company.

AWARDS

- **Second** position at the PHM Europe 2020 Data Challenge organized as part of the PHM Society European Conference (See [43]).
- **Winner** with the model checker NUXMV of the LIVE SAT/UNSAT track at the Hardware Model Checking Competition (HWMCC'15). Second at the SINGLE SAT/UNSAT and at the DEEP track at the HWMCC'15. Joint work with A. Griggio. <http://fmv.jku.at/hwmcc15/> (2015)
- **Best paper award** in Software Science at the European Joint Conference on Theory and Practice of Software (ETAPS 2011). “*Boosting Lazy Abstraction for SystemC with Partial Order Reduction*” by Alessandro Cimatti, Iman Narasamdya and Marco Roveri (March 2011).
- **Best PhD thesis award** for the thesis *Planning in Non-Deterministic Domains via Symbolic Model Checking* by the *Associazione Italiana per l'Intelligenza Artificiale (AI*IA)* (September 2002).
<https://sites.google.com/a/aixia.it/vincitori-premi/Home>

RESEARCH MANAGEMENT ACTIVITIES

- (2022–today) Local Principal Investigator (Responsabile dell'Unità di Ricerca) *MUR PRIN 2020 - RIPER - Resilient AI-Based Self-Programming and Strategic Reasoning - CUP E63C22000400001*. This project aims at developing a core theory and algorithms for resilient self-programming.
- (2022–today) Work package leader, and Co-Scientific coordinator for the *CROSSCON - Cross-platform Open Security Stack for Connected Devices* HORIZON-CL3-2021-CS-01-02
 - Design of a new open, flexible, highly portable and vendor independent IoT security stack that can run across a variety of different edge devices and multiple hardware platforms to offer a consistent security baseline across an entire IoT system.
- (2022–today) Principal investigator for the *Dolomitirobotics - Conto Terzi* project aiming at the study and optimization of existing algorithms for orchestrating the movements of a fleet of robotic agents within industrial scenarios.
- (2020–today) Principal investigator for the *MOSES - Bando interno 2020 Università di Trento "Covid 19"*. This project aims at the design of a first prototype of an advanced Decision Support System that can be used to support decisions relating to the containment of the spread of epidemics.
- (2016–2022) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the technology transfer project with SAIPEM (<http://www.saipem.com>). Design and development of an autonomous reasoning engine for the control of a subsea autonomous drone.
- (2019) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for a technology transfer project with the *Advanced Laboratory on Embedded Systems – United Technologies Systems & Controls Engineering* (<http://www.utc.com>). Integration of advanced model checking techniques in the company verification flow.
- (2019–2020) Project Coordinator and Research Scientist in charge for Fondazione Bruno Kessler for the EIT-Raw Material project *Autonomous Monitoring and Control System for Mining Plants (AMICOS)*. This project supports the digital transformation of the Raw Material industry by proposing an innovative E2E asset management solution to increase the market penetration/adoption of digital technology in mines. It provides a great opportunity to gain

- market share by exploiting emerging technologies to reduce the costs for key operations to allow a safer working environment.
- (2018–2020) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the EIT-Digital project *UAV-RETINA*. It aims at developing a platforms per the orchestration and management of a fleet of drones for rescue operations.
 - (2018–2020) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for a research and technology transfer project aiming at developing a model based autonomous platform (including planning, scheduling, mission verification, fault detection, identification and recovery) for the orchestration and management of a fleet of drones for monitoring and operations in the oil & gas setting.
 - (2018–2020) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the EIT-Digital project *Autonomous Warehouse and Last Mile Delivery (AWARD)*. It aims at developing a logistic platform leveraging on AI Planning and Scheduling techniques to coordinate a fleet of autonomous vehicles (unmanned aerial and terrestrial vehicles) for moving goods within a warehouse and for last mile delivery in areas where traditional solutions (based on human operators) are expensive.
 - (2017–2018) Responsible for all the ICT related research aspects at the Mechatronics Prototyping Facility (Pro-M) located in Rovereto, Italy and funded by Fondo Europeo di Sviluppo Regionale (FESR) jointly developed by Fondazione Bruno Kessler, University of Trento, Confindustria Trento, and Trentino Sviluppo. The facility aims at providing a platform where to experiment and develop prototypes for the Industry of the Future.
 - (2017) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the EIT-Digital project *Add-on, Low cost, Multi-purpose (ALM)-enabled Smart Maintenance (ALMeS)*. It aims at developing a cost-effective solution based on the collection and analysis of real-time data from machines. Its ALM modules for measuring real-time parameters such as vibrations, energy consumption and temperature will allow factory managers to quickly and simply optimise machinery performance and reduce costs, switching from established patterns to the more effective method of predictive maintenance.
 - (2017) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the EIT-Digital project *intraLogistics Enabled by autonomous Vehicles cooperATING with Operators and Robots (iLEVATOR)*. It is a followup of the EIT-Digital 2016 iLLAADR project. The goal is to consider additional replenishment aspects of the internal logistic within a plant not considered in the previous project, in particular considering the possibility to have the man in the loop (that was out of scope in the previous exploratory project).
 - (2016) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the EIT-Digital project *internal Logistics with Automated Autonomous Delivery and Replenishment (iLAADR)*. It aims at developing a solution kit for internal logistics chains including low cost, IoT-enabled, network of Automated Guided Vehicles; embedded CPS modules for sensing, reasoning and communication capabilities on AGVs; robotic manipulators enhanced with versatile 3-D printed grippers. The goal is to enable automated replenishment; support complex event detection; autonomously reconfigure the internal flows; simplify human-robot interaction at line side; and assess its impact on inbound logistics.
 - (2016–2020) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the project *Gestione Irrigua a Domanda Assistita (GIADA)* funded by the Province of Trento. The project aims at the development of an intelligent control system for monitoring and suggesting the most appropriate irrigation to be applied in a different field depending on

- many parameters (nature of the soil composition, forecast, kind of cultivation, ...) with the goal to optimize the use of water.
- (2016–2020) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the project *Sistema Multiplo per la gestione, lo stoccaggio e la distribuzione dell'energia su reti locali (SMSE)* funded by the Province of Trento. The project aims at the development of an intelligent control system for managing the energy production of a green energy grid with the aim of optimizing the environmental and energy impact leveraging on green energy production systems to sustain the energy demand of isolated areas (e.g. islands).
 - (2013–2016) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the ARTEMIS Joint Undertaking project *CRYSTAL (CRITICAL sYSTEM engineering AccELeration)* takes up the challenge to establish and push forward an Interoperability Specification (IOS) and a Reference Technology Platform (RTP) as a European standard for safety-critical systems. (<http://www.crystal-artemis.eu/>)
 - (2014) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for a technology transfer project with the *Advanced Laboratory on Embedded Systems – United Technologies Systems & Controls Engineering* (<http://www.utc.com>). Integration of advanced model checking techniques in the company verification flow.
 - (2014) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the EIT ICT Labs activity for the organization of the 2014 edition of the EIT ICT Labs Summer School on Cyber Physical Systems, and for the study of a CPS Curriculum.
 - (2012–2014) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the technology transfer project *CASTORONE* with SAIPEM (<http://www.saipem.com>). Design and verification of a reasoning and planning layer (L3) for the CASTORONE pipe lay-down vessel (the largest pipeline vessels in the world). In particular we worked along two main directions. *Support Project Designers*: Identify plant configurations and operations sequence while fulfilling project requirements: planning and re-planning. *Engineering Tool at support of Supervisor*: Evaluation of the performances of the operation sequences and configuration (manually or automatically produced) in the nominal and in presence of faults for re-planning.
 - (2011–2014) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler for the project *IRONCAP: “Innovative Rover Operation Concepts: Autonomous Planning*, funded by the European Space Agency (ESA/ESOC ITT TRP/T309/002HS).
 - (2008–2010) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler of the EU project “*COCONUT: A A CORRECT-by-CONSTRUCtION Workbench for Design and Verification of Embedded Systems*” (FP7-2007-IST-1-217069) <http://www.coconut-project.eu/>
 - (2007–2008) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler of the project *OMC-ARE: “On-board Model Checking - Autonomous Reasoning Engine* funded by the European Space Agency (ESA/ESTEC ITT) AO/1-5184/06/NL/JD. https://es.fbk.eu/projects/osa_omc-are.
 - (2007–2008) Project Manager and Research Scientist in charge for Fondazione Bruno Kessler of the EU project “*S3MS: Security of Software and Services for Mobile Systems*” (IST-FP6-STREP-27004) <http://www.s3ms.org/index.jsp>
 - (2004–2006) Project Manager and Research Scientist in charge for ITC-irst of the EU project “*PROSYD: Property Based System Design*” (IST-2003-507219) <http://www.prosyd.org>

PROJECT PROPOSAL REVIEWS ACTIVITIES

- Reviewer for the EU Funded project FOCETA - <http://www.foceta-project.eu/>
- Reviewer of project proposals for the *PRIN 2017* grants by *Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR)* (Minister of Education, Univeristy and Research). <http://prin.miur.it/index.php?pag=2017> (2018)
- Reviewer of project proposals for the *The United Arab Emirates University (UAEU)*. <http://www.uaeu.ac.ae/en/> (2017)
- Reviewer of project proposals for the *High Tech Systems and Materials (HTSM) call by the STW/Enabling new technology foundation*. *STW is financed by the Netherlands Organisation for Scientific Research, NWO, and the Dutch Ministry of Economic Affairs, Agriculture and Innovation*. <http://www.stw.nl> (2016)
- Reviewer of project proposals for the *Cyber-Physical Systems Engineering Labs (CPSE Labs) a European Union-funded initiative*. <http://www.cpse-labs.eu/> (2015)
- Reviewer of project proposals for the *Netherlands Organisation for Scientific Research* (2009-2010)
- Reviewer for the European Union for a FET Proactive project within FP7 framework. (2009-2012)

RESEARCH EVALUATION COMMITTEE

UNIVERSITY BOARD OF REGENTS

I'm member of the following University Board of Regents:

- (2015–today) Member of the “Collegio Docenti” (Board of Regents) for the Information and Communication Technology doctoral School of the University of Trento.

RESEARCH HABILITATION THESIS

I was member of the Evaluation Committee for the following habilitation candidates:

- Matthieu Moy, Université de Grenoble, France (2013)

PHD EVALUATION COMMITTEE

I was member of the PhD Evaluation Committee for the following PhD students:

- Dr. Stefano Paterna, University of Trento
- Dr. Podsiadlo Iwona Katarzyna, University of Trento
- Dr. Amirhossein Tebbifakhr, University of Trento
- Dr. Marco Favorio, Sapienza University of Rome
- Dr. Andrea Mazzullo, Free University of Bozen-Bolzano
- Dr. Francesco Savarese, Computer and Control Engineering department of Politecnico di Torino (2019)
- Dr. Alessandro Dainese, Information Technology of the Univeristy of Verona (2018)
- Dr. Mohammad Mehdi Pourhashem Kallehbasti, Information Technology of the Politecnico di Milano (2015)
- Dr. Sentot Kromodimoeljo, The University of Queensland, Australia (2014)
- Dr. José Vander Meulen, Académie Universitaire Louvain, Belgio (2012)

PHD/MASTER/BACHELOR SUPERVISION

I've been supervising or co-supervisor for the following PhD students:

- Dr. Atefeh Zareh Chahoki
- Dr. Hani Beirani - jointly supervised with A. Cimatti
- Dr. Ahmet Tikna - jointly supervised with Prof. L. Palopoli
- Dr. Aya Kherrou - jointly supervised with Prof. P. Giorgini
- Dr. Alireza Parvizimosaed - jointly supervised with Prof. J. Mylopoulos, Prof. D. Amyot, and Prof. L. Logrippo from University of Ottawa
- Dr. Enrico Saccon - jointly supervised with Prof. L. Palopoli - (forthcoming)
- Dr. Hameed Rana Umair jointly supervised with Prof. L. Palopoli and Prof. D. Fontanelli (funded by National PhD on Robotics) - (forthcoming)
- Dr. Usama Syed Ali jointly supervised with Prof. L. Palopoli and Prof. D. Fontanelli (funded by National PhD on Robotics) - (forthcoming)
- Ahmed Irfan (early 2018) *Efficient SMT-based Model Checking of Reactive Systems* will be defended at the University of Trento, Italy – expected defense early 2018.
- Andrea Micheli (2016) *Planning and Scheduling in Temporally Uncertain Domains* defended at the University of Trento, Italy in 2016.
- Krishnamani Kalyanasundaram (2010) *An efficient effective and scalable methodology for formal verification* defended at the University of Trento, Italy in 2010.

I was co-supervisor for the following Master and Bachelor students:

- Calzà Davide, July 2022, (*Remaining Useful Lifetime Prediction of an experimental filtration system*)
- Gheda Roberto, July 2022, (*Integrazione di PLANSYS2 per la gestione di una flotta di AGV*)
- Rossi Filippo, July 2022, (*Drone surveillance: mission planning and fleet management with PDDL*)
- Righete Manuel, Sep 2022, (*Avalanche disaster inspection tools: pianificazione automatica centralizzata delle missioni di una flotta di droni e robot mobili*)
- Fronza Pietro, Sep 2022, (*Controllo automatico del traffico via pianificazione automatica*)
- Nardi Davide, Sep 2022, (*Scarabeo robotico: UR5e che gioca a scarabeo*)
- Zilio Nicola, Sep 2022, (*Vision algorithms for scrabble game with UR5e*)
- Gianni Zampedri (2013) *Modellazione e Validazione di un Robot per l'Esplorazione Planetaria* Bachelor thesis. University of Trento.
- Michele Cristelli (2013) *Planning with Durative Actions under Temporal Uncertainty* Master thesis. University of Trento.
- Andrea Micheli (2011) *Temporal problems with satisfiability modulo theory*. Master thesis. University of Trento.
- Marco Pensallorto (2010) *Implementazione Efficiente di tecniche di model checking per invarianti su sistemi a stati finiti basate su interpolanti di Craig* Bachelor thesis. University of Trento.
- Alessandro Mariotti (2010) *Verifica formale di hardware via AIGER e NuSMV* Bachelor thesis. University of Trento.
- Andrea Micheli (2009) Bachelor thesis. University of Trento.

I'm currently supervising/co-supervising the following Master and Bachelor students:

- Dal Zotto Luca (*Use of the ARI Robots for welcoming DISI guests*)
- Ambrosini Matteo (*Optimization of Industrial Processes*)
- Zanetti Alex (*Interleaving planning and execution in a ROS2 BDI framework*)
- Bertelli Davide (*Ottimizzazione raccolta differenziata utilizzando tecniche di planning e scheduling multi-agente*)
- Diego Planchenstainer (*Multi-agent path planning algorithms for logistic applications*)
- Giovanni Lorenzini (*Multi-agent path planning algorithms for logistic applications*)
- Damaschin Dumitru (*Gestione Efficiente di Vincoli Booleani per Ising models con D-WAVE Quantum Annealers*)
- Pavan Stefano (*Planning System di un robot UR5 per costruire un castello*)
- Magalini Francesco (*Algoritmi di simulated annealing per Hoist-Scheduling*)
- Melis Luca Danilo (*AI Planning for predicting Financial Activities*)

INDUSTRIAL CONTACTS

The following is a list of industrial contacts resulting from the different projects I was involved with.

- SIEMENS Italia (<https://www.siemens.com/it/it/home.html>)
- Schneider Electric Italia (<https://www.schneider-electric.it/it/>)
- FIAT Chrysler Automobiles N.V. (<http://www.fcagroup.com/>)
- Reply Living Network (<http://www.reply.eu>)
- SAIPEM s.p.a. (<http://www.saipem.com>) a multinational oil and gas industry contractor.
- Ales – United Technologies (<http://www.utc.com>) a multinational company operating in aerospace, defense and building domains.
- Ansaldo STS S.p.A. A transportation company with a global presence in the field of signaling and integrated transport systems for passenger traffic and freight operations.
- Invensys Ltd. A multinational engineering and information technology.
- Boeing. An American multinational corporation that designs, manufactures, and sells airplanes, rotorcraft, rockets and satellites.
- RINA SERVICES S.p.A. A company developing and offering services of ships classification, certification, verification of conformity, inspection and testing.
- Thales Alenia Space. A multinational aerospace company affiliated to Finmeccanica.
- GMV. An international business group operating in: aeronautics, space, defense, security, telecommunications, ICT, transport, healthcare.
- TRASYS. An IT solutions & services company operating in many fields.
- Space Systems Finland Ltd. A company for addressing safety-critical needs in aerospace.
- Astrium. An aerospace manufacturer.
- Airbus SAS is an aircraft manufacturing.
- INTECS a design and development company for Aerospace, Defense, Transportation, Telecommunication and Smart Systems domains.
- Reti Ferroviarie Italiane (RFI), is a Rail Infrastructure Manager company.

Moreover, I have other contacts within the industrial partners of the ARTEMIS Joint Undertaking projects:

- CRYSTAL (CRITICAL sYSTEM engineering AccELeration): <http://www.crystal-artemis.eu/>
- SafeCer (Safety Certification of Software-Intensive Systems with Reusable Components): <http://www.safecer.eu/>

SCIENTIFIC ACTIVITIES

- 2012 - 2020: *system architect* for the NUXMV symbolic model checker. It is an extension of the NUSMV model checker for the analysis of infinite state designs. It has been used by FBK in several technology transfer and research projects. The system won the LIVE SAT/UNSAT track at the Hardware Model Checking Competition (HWMCC'15), and scored second at the SINGLE SAT/UNSAT and at the DEEP track at the HWMCC'15. There are about 5 people working on the project. The system has been downloaded by more than 3800 users. Several companies integrate it as verification back-end (e.g. Ansaldo STS, Ales United Technologies, Thales Alenia Space, Boeing), and we have been contacted by major desing tool providers to consider for the integration in their commercial products.
- January 2009 - February 2020: *system architect* for the KRATOS state-of-the-art software model checker for the verification of sequential C code and for the verification of SystemC designs. We recorded more than 500 downloads. The development team is composed by 4 people. It has been considered by several industrial players (e.g. Boeing and Ales United Technologies).
- February 1997 - February 2020: *system architect* for the NUSMV symbolic model checker. It has been developed as a joint project of the *Formal Methods* group of ITC-irst, the *Formal Methods* group of Carnegie Mellon University, the University of Trento, and the University of Genova. The tool is used by several universities in the world as an teaching tool, and in several international research centers as a platform on top of which to experiment new formal verification techniques. Moreover, it has been used by ITC-irst first, and by FBK then, in several technology transfer and research projects. There are about 5 people working on the project. The system has been downloaded by more than 20000 users. It has been integrated in more than 20 external research tools. Moreover, Honeywell and Rockwell Collins use it as verification back-end.
- 1998 - 2002: *system architect* for the MBP (*Model Based Planner*), a *planner for planning domains with different degree of uncertainty, and with different assumption on the available observations on the domain*. The tool has been built on top of the NUSMV symbolic model checker. The tools is used as teaching tool in several universities, and it has been used by ITC-irst withing technology transfer and research projects.
- 1994 - 1997: Research and development activity in Artificial Intelligence and Computer Science within the *Gruppo di Ragionamento Meccanizzato* (M.R.G.) at ITC-irst in Trento and the Dipartimento di Informatica Sistemistica e Telematica (DIST) of the University of Genova.

EDUCATIONAL ACTIVITIES

Academic Years 2021-2023

- *Automated Planning: Theory and Practice* - University of Trento

Academic Years 2020-2023

- *Programmazione 1* - University of Trento

Academic Years 2019-2020

- *Calcolatori* - University of Trento

March 2019

- “*PROJM-CAMP - INDUSTRY 4.0 STUDENT CHALLENGE*” A camp from 18 to 22 February 2019 addressed to 26 participants between 17 and 19 years of age selected by the schools and realized at the ProM (Prototyping Mechatronics) Facility in Rovereto, to develop IoT applications in the context of Industry 4.0 to build a prototype of predictive maintenance for industrial machines, using off-the-shelf IoT infrastructure considering security issues as well as digital signal processing and machine learning techniques. Trento, Italia (given in Italian).

<https://fbkjunior.fbk.eu/projects/detail/prom-camp>

March 2018

- “*PROJM-CAMP - INDUSTRY 4.0 STUDENT CHALLENGE*” A camp from 5 to 9 March 2018 addressed to 25 participants between 17 and 19 years of age selected by the schools and realized at the ProM (Prototyping Mechatronics) Facility in Rovereto, to develop IoT applications in the context of Industry 4.0 to build a prototype of predictive maintenance for industrial machines, using the IoT FBK infrastructure. Trento, Italia (given in Italian).

<https://www.fbk.eu/en/event/prom-camp-industry-4-0-student-challenge/>

Academic Year 2011-2012

- “*Formal Validation of Requirements for Hybrid Systems*” Tutorial at the “*Requirements Engineering (Re 2011)*” conference. Trento, Italia (given in English).

Academic Year 2006-2007

- “*Informatica Generale II*” (*Algorithms and Data Structures*) – Faculty of Telecommunication Engineering – University of Trento, Italy (given in Italian).

Academic Year 2005-2006

- “*Informatica Generale II*” (*Algorithms and Data Structures*) – Faculty of Telecommunication Engineering – University of Trento, Italy (given in Italian).

Academic Year 2004-2005

- “*Informatica Generale II*” (*Algorithms and Data Structures*) – Faculty of Telecommunication Engineering – University of Trento, Italy (given in Italian).
- “*Advanced Formal Methods*” – ICT International Doctorate School of University of Trento, Italy (given in English).

Academic Year 2003-2004

- “*Informatica Generale II*” (*Algorithms and Data Structures*) – Faculty of Telecommunication Engineering – University of Trento, Italy (given in Italian).

- “*Formal Methods and Model Checking*” – Tutorial at the *International Conference on Automated Planning and Scheduling (ICAPS’03)*, Trento, Italy (given in English).

Academic Year 2002-2003

- “*Formal Methods and Model Checking*” and “*The NUSMV system*” at the “*Calculus Autumn School 2002*” held in Pisa, Italy (given in English).

Academic Year 2001-2002

- “*Planning as Symbolic Model Checking Tutorial*” at the “*Artificial Intelligence and Planning Systems (AIPS’2002)*” conference. Tolosa, France (given in English).

Academic Year 1998-1999

- “*Model Checking Tutorial*” at the “*Federated Logic Conference*” (FLoC’99). Trento, Italy (given in English).
- “*Verification of Concurrent, Reactive and Real-Time Programs*” – Teaching assistant for Prof. Edmund Clarke at the Carnegie Mellon University. Pittsburgh, Pennsylvania, USA (given in English).

Academic Year 1994-1995

- *Fondamenti di Informatica I* – Teaching assistant for Prof. M. Di Manzo, at the Faculty of Computer Science Engineering of the University of Genova, Italy (given in Italian).

VISITING RESEARCH ACTIVITIES

- February 2004: *Visiting Researcher* at the “Department of Computer Science and Engineering” dell’ IIT Delhi - India hosted by Prof. Sanjiva Prasad and Prof. S. Arun-Kumar. The visit was funded by the project “Composition, Hierarchy and Abstraction for Model checking in Practice (CHAMP)” funded within the POC Italo-Indiano in S&T for the period from 2002 to 2004.
- January 11, 1999 - June 2, 1999: *Visiting researcher* at the Department of Computer Science of the Carnegie Mellon University (Pittsburgh) hosted by the *Formal Methods Group* of Prof. Edmund Clarke.

CONFERENCES ACTIVITIES

- Senior Program committee member of the *International Conference on Automated Planning and Scheduling (ICAPS 2023)*.
- Program committee member of the *International Conference on Automated Planning and Scheduling (ICAPS 2022)*.
- Co-Chair for the *Workshop on Scheduling and Planning Applications woRKshop* - (SPARK 2021-2022)
- Program committee member of the *American Association for Artificial Intelligence (AAAI 2022)*.
- Program committee member of the *Associazione Italiana per l’Intelligenza Artificiale (AIxIA 2022)*.

- Program committee member of the *Formal Methods in Computer Aided Design (FMCAD 2022)*.
- Program committee member of the *International Joint Conferences on Artificial Intelligence (IJCAI 2019,2020,2021,2022,2023)*.
- Program committee member of the *IntEx20XX (ICAPS 20XX Workshop on Integrated Planning, Acting, and Execution)* - (2022)
- Program committee member of the *I-RIM 20XX (Italian Conference on Robotics and Intelligent Machines)* - (2021-2022)
- Program committee member of the *Forum on specification and Design Languages (FDL 2019)*.
- Program committee member of the *Workshop on Practical Formal Verification for Software Dependability (AFFORD 2019)*.
- Program committee member of the *6th Global Conference on Artificial Intelligence (GCAI 2020)* (GCAI 2020).
- Program committee member of the *17th International Workshop on Satisfiability Modulo Theories (SMT 2019)*.
- Program committee member of the *33rd AAI Conference on Artificial Intelligence (AAAI 2019)*.
- Program committee member of the *International Workshop on Formal Methods for Industrial Critical Systems (FMICS 2018)*.
- Program committee member of the *Forum on specification and Design Languages (FDL 2018)*.
- Program committee member of the *International Joint Conferences on Artificial Intelligence and European Conference on Artificial Intelligence joint Conference (IJCAI-ECAI 2018)*.
- Program committee member of the *32nd AAI Conference on Artificial Intelligence (AAAI 2018)*.
- Workshop Co-chair with Anotonio Cerone for of the *15th International Conference on Software Engineering and Formal Methods (SEFM 2017)*.
- Program committee member of the *31st AAI Conference on Artificial Intelligence (AAAI 2017)*.
- Program committee member of the *International Workshop on Formal Methods for Industrial Critical Systems and Automated Verification of Critical Systems (FMICS-AVOCS 2017)*.
- Program committee member of the *3rd Global Conference on Artificial Intelligence (GCAI 2017)*.
- Program committee member of the *Forum on specification and Design Languages (FDL 2017)*.
- Program committee member of the *Forum on specification and Design Languages (FDL 2016)*.
- Program committee member of the *25th International Joint Conference on Artificial Intelligence (IJCAI 2016)*.
- Program committee member of the *2nd Global Conference on Artificial Intelligence (GCAI 2016)*.
- Program committee member of the *International Workshop on Formal Methods for Industrial Critical Systems and Automated Verification of Critical Systems (FMICS-AVOCS 2016)*.
- Program committee member of the *30th AAI Conference on Artificial Intelligence (AAAI 2016)*.

- Program committee member of the *International Workshop Automated Verification of Critical Systems* (AVOCS 2015).
- Program committee member of the 29th *AAAI Conference on Artificial Intelligence* (AAAI 2015).
- Program committee member of the 21st *RCRA International Workshop on "Experimental Evaluation of Algorithms for solving problems with combinatorial explosion"* (RCRA 2014)
- Program committee member of the *International Workshop Automated Verification of Critical Systems* (AVOCS 2014).
- Program committee member of the 8th *International Conference on Language and Automata Theory and Applications* (LATA 2014).
- Program committee member of the *International Workshop Automated Verification of Critical Systems* (AVOCS 2013).
- Program committee member of the 22nd *International Conference on Automated Planning and Scheduling* (ICAPS 2012).
- Co-chair con Jörg Brauer and Hendrik Tews of the 6th *International System Software Verification* (SSV 2011) international workshop.
- Program committee member of the *Formal Methods for Industrial Critical Systems* (FMICS 2011) international workshop.
- Program committee member for the 22nd *International Joint Conference on Artificial Intelligence* (IJCAI 2011).
- Co-chair with Stefan Kowalewski for the *Formal Methods for Industrial Critical Systems* (FMICS 2010) international workshop.
- Program committee member for the *International Symposium on Quality Engineering for Embedded Systems* held jointly with ECMDA 2008.
- Program committee member for the 13th *Formal Methods for Industrial Critical Systems* international Workshop (FMICS 2008).
- Co-chair and program committee member for the *1st Verification and Debugging Workshop* affiliated with the Computer Aided Verification conference (CAV 2006) held in conjunction with the Federated Logic Conference 2006, Seattle USA, August 2006.
- Program committee member for the *American Association for Artificial Intelligence Conference* (AAAI 2006).
- Program committee member for the 3rd *International Workshop on Safety and Security in Multi-Agent Systems* (SASEMAS 2006) held in conjunction with the 5th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2006), (2006)
- Local Chair for the conference *International Symposium on Applications and the Internet (SAINT'2005)* held in Trento, Italy January 31 - February 4, 2005. (2005)
- Program committee member for the 2nd *International Workshop on Safety and Security in Multi-Agent Systems* (SASEMAS 2005) held in conjunction with the 4th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2005), Utrecht, The Netherlands. July 25, 2005 or July 26, 2005. (2005)
- Program committee member for the 1st *International Workshop on Safety and Security in Multi-Agent Systems* (SASEMAS 2004) held in conjunction with the 3rd International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), New York, USA July 2004. (2004)

EDITORIAL BOARD ACTIVITIES

- *MDPI Applied Science* (2019)

RESEARCH ARTICLES REVIEWS ACTIVITIES

JOURNALS

- *Information Systems* - Elsevier - (2022)
- *Artificial Intelligence Journal* - Elsevier - (2022)
- *Journal of Artificial Intelligence Research* - (2022)
- *Journal of Automated Reasoning* - Springer - (2022)
- *IEEE Transactions on Automatic Control* - (2020-2022)
- *MDPI Sensors* (2019)
- *PDDT DIAGNOSTYKA* (2019)
- *Robotics: Science and Systems* (2019)
- *MDPI Applied Science* (2019)
- *IEEE Transactions on Dependable and Secure Computing* (2018)
- *Springer's International Journal on Software Tools for Technology Transfer* (2003, 2008, 2013, 2017).
- *Science of Computer Programming* (2012, 2015, 2016, 2017)
- *Transaction on Software Engineering* (2009, 2010, 2015, 2016)
- *Artificial Intelligence (AI) Communication* (2015)
- *Information Processing Letter* (2010, 2014)
- *Sensors Journal* ISSN 1424-8220; CODEN: SENSC9 (2013, 2016)
- *Journal of Systems and Software* (2013)
- *Transaction on Design and Automation of Electronic Systems* (2011, 2012)
- *Software: Practice and Experience* (2009, 2010)
- *Artificial Intelligence* (2006, 2007)
- *Inteligencia Artificial, Revista Iberoamericana de Inteligencia Artificial* (2008)
- *International Journal of Foundations of Computer Science* (2003).
- *Journal of Logic and Algebraic Programming* (2001).

CONFERENCES AND WORKSHOPS

- *International Conference on Automated Planning and Scheduling* (ICAPS-20, ICAPS-21, ICAPS-22, ICAPS-23)
- *IJCAI-ECAI Joint Conferences on Artificial Intelligence* (IJCAI-ECAI-2022)
- *International Conference on Formal Methods in Computer Aided Design* (FMCAD 2022).
- *IntEx (ICAPS 20XX Workshop on Integrated Planning, Acting, and Execution)* (IntEx 2020, 2021, 2022)
- *I-RIM (Italian Conference on Robotics and Intelligent Machines)* (I-RIM 2021, 2022)
- *37th Conference on Artificial Intelligence* (AAAI-23)
- *36th Conference on Artificial Intelligence* (AAAI-22)
- *35th Conference on Artificial Intelligence* (AAAI-21)
- *34th Conference on Artificial Intelligence* (AAAI-20)

- 33rd *Conference on Artificial Intelligence (AAAI-19)*
- *IJCAI Joint Conferences on Artificial Intelligence (IJCAI-19)*
- *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS-2018)*
- *IJCAI-ECAI Joint Conferences on Artificial Intelligence (IJCAI-ECAI-18)*
- 32nd *Conference on Artificial Intelligence (AAAI-18)*
- *International Conferences on Logic for Programming, Artificial Intelligence and Reasoning (LPAR-18)*
- *Forum on specification & Design Languages (FDL-2017)*
- 13th *Haifa Verification Conference (HVC 2017)*
- *International Joint Conference on Artificial Intelligence (IJCAI 2017).*
- 3rd *Global Conference on Artificial Intelligence (GCAI 2017)*
- 23rd *International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS 2017).*
- 20th *ACM International Conference on Hybrid Systems: Computation and Control (HSCC 2017)*
- 30th *Conference on Artificial Intelligence (AAAI-16)*
- *International Joint Conference on Artificial Intelligence (IJCAI 2016).*
- *Forum on specification & Design Languages (FDL-2016)*
- *Business Process Management Conference (BPM-2016)*
- *International Workshop on Formal Methods for Industrial Critical Systems and Automated Verification of Critical Systems (FMICS-AVoCS 2016)*
- 8th *NASA Formal Methods Symposium (NFM-2016)*
- *Satisfiability Checking and Symbolic Computation (SC2-2016)*
- 2nd *Global Conference on Artificial Intelligence (GCAI 2016)*
- 29th *Conference on Artificial Intelligence (AAAI-15)*
- 21th *International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS 2015).*
- 1st *International Workshop on Requirements Engineering for Self-Adaptive and Cyber Physical Systems (RESACS 2015).*
- 20th *International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS 2014).*
- 4th *international symposium on model based safety assessment (IMBSA 2014)*
- 21st *RCRA International Workshop on Experimental Evaluation of Algorithms for solving problems with combinatorial explosion (RCRA 2014)*
- *Design, Automation and Testing in Europe (DATE 2014).*
- 8th *International Conference on Language and Automata Theory and Applications (LATA 2014)*
- 17th *International Conference on Fundamental Approaches to Software Engineering (FASE 2014)*
- 14th *International Conference on Formal Methods in Computer Aided Design (FMCAD 2014).*
- 14th *International Workshop on Automated Verification of Critical Systems (AVOCS 2014)*
- *International Workshop on Design and Implementation of Formal Tools and Systems (DIFT 2014)*
- *International Joint Conference on Artificial Intelligence (IJCAI 2013).*
- 18th *International Workshop on Formal Methods for Industrial Critical Systems (FMICS 2013).*
- 13th *International Workshop on Automated Verification of Critical Systems (AVOCS 2013)*
- 22nd *International Conference on Automated Planning and Scheduling (ICAPS-12)*
- 26th *Conference on Artificial Intelligence (AAAI-12)*
- 12th *International Conference on Formal Methods in Computer Aided Design (FMCAD 2012).*
- 18th *International Symposium on Formal Methods (FM 2012).*
- 11th *International Conference on Formal Methods in Computer Aided Design (FMCAD 2011).*

- 14th *International Conference on Theory and Applications of Satisfiability Testing* (SAT 2011).
- 16th *International Conference on Tools and Algorithms for the Construction and Analysis of Systems* (TACAS 2011).
- *Design, Automation and Testing in Europe* (DATE 2011).
- 16th *International Workshop on Formal Methods for Industrial Critical Systems* (FMICS 2011).
- 23rd *International Conference on Automated Deduction* (CADE 2011).
- 10th *International Conference on Formal Methods in Computer Aided Design* (FMCAD 2010).
- *Design, Automation and Testing in Europe* (DATE 2010).
- 22th *International Conference on Computer Aided Verification* (CAV 2010).
- 9th *International Conference on Formal Methods in Computer Aided Design* (FMCAD 2009).
- 17th *IEEE International Conference on Computer Design* (ICCD 2009).
- 15th *International Conference on Tools and Algorithms for the Construction and Analysis of Systems* (TACAS 2009).
- 6th *IEEE International Conference on Software Engineering and Formal Methods* (SEFM 2008).
- 15th *International Conferences on Logic for Programming, Artificial Intelligence and Reasoning* (LPAR 2008).
- 13th *International Workshop on Formal Methods for Industrial Critical Systems* (FMICS 2008).
- 7th *International Conference on Autonomous Agents and Multi Agent Systems* (AAMAS 2008).
- 20th *International Conference on Computer Aided Verification* (CAV 2008).
- *International Symposium on Quality Engineering for Embedded Systems* (IS-QEES08)
- 8th *International Conference on Formal Methods in Computer Aided Design* (FMCAD 2008).
- *Design, Automation and Testing in Europe* (DATE 2008).
- 9th *Verification, Model Checking, and Abstract Interpretation* (VMCAI 2008).
- 7th *International Conference on Formal Methods in Computer Aided Design* (FMCAD 2007).
- 5th *IEEE International Conference on Software Engineering and Formal Methods* (SEFM 2007).
- 19th *International Conference on Computer Aided Verification* (CAV 2007).
- 6th *Formal Methods in Computer Aided Design conference* (FMCAD 2006).
- 1st *Verification and Debugging Workshop* (V&D06).
- 21st *National Conference on Artificial Intelligence* (AAAI 2006).
- 17th *International Conference on Computer Aided Verification* (CAV 2005).
- 4th *International Joint Conference on Autonomous Agents and Multi Agent Systems* (AAMAS 2005).
- 8th *International Design, Automation and Testing in Europe Conference and Exhibition* (DATE 2005).
- 2nd *International Conference on Service Oriented Computing* (ICSOC 2004).
- 23rd *International Conference on Computer Safety, Reliability and Security* (SAFECOMP 2004).
- 5th *International Workshop on Agent-Oriented Software Engineering* (AOSE 2004).
- 4th *International Workshop on Agent-Oriented Software Engineering* (AOSE 2003).
- 8th *National Conference of the Italian Association for Artificial Intelligence* (AI*IA 2003).
- 14th *International Conference on Concurrency Theory* (CONCUR 2003).
- *International Conference on Computer Aided Verification* (CAV 2003).
- *International Conference on Automated Deduction* (CADE 2003).
- *Hybrid Systems: Computation and Control* (HSCC 2003)
- 18th *National Conference on Artificial Intelligence* (AAAI 2002).
- *Artificial Intelligence and Planning Systems* (AIPS 2002).
- *European Conference on Planning* (ECP 2001).
- *International Joint Conference on Artificial Intelligence* (IJCAI 2001).
- *Student session in Logic and Computation* (ESSLLI 2000).
- *Symbolic Model Checking Workshop* (SMC 1999).

- *World Congress on Formal Methods (FM 1999)*.
- *International Conference on Computer Aided Verification (CAV 1999)*.
- *International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS 1998)*.
- *International Conference on Automated Deduction (CADE 1998)*.

SCHOLARSHIPS

- PhD Scholarship at the *Dipartimento di Scienze dell'Informazione* of the Università degli studi di Milano (October 1997 - November 2001).
- *Scholarship AAAI/PLANET* to attend the *Sixth International Conference on Planning and Scheduling (AIPS'02)* held in Tolosa, France (April 2002).
- Scholarship by the *Advanced Study Institute* and by the *NATO Science Committee* to attend the *21st International Summer School Marktoberdorf* held in Marktoberdorf, Germany (August 2000).
- Scholarship to attend the “*MOVEP'2k: MODelling and Verification of Parallel Processes*”, Computer Science and Automated Systems Summer School, held in Nantes, France (June 2000).
- Scholarship by the *Advanced Study Institute* and by the *NATO Science Committee* to attend the *19th International Summer School Marktoberdorf* held in Marktoberdorf, Germany (August 1998).
- Scholarship by the *ITC-irst (Istituto Trentino di Cultura - Istituto per la Ricerca Scientifica e Tecnologica)* to work on model checking techniques (February 1997).

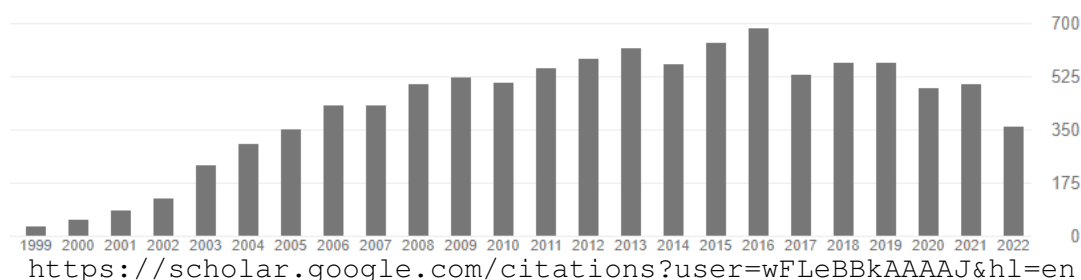
INVITED TALKS

- *Software Model Checking for Cooperative Threaded Programs* at CERIST International Summer School on Cyber Physical Systems September 30 - October 4, 2013 Algiers
- *Software Model Checking With Explicit Scheduler and Symbolic Threads* at 13th International Workshop on Automated Verification of Critical Systems (AVOCS 2013).
- *A Comprehensive Approach to On-Board Autonomy Verification and Validation* at Verification and Validation of Planning and Scheduling Systems (VV&PS 2009 held in conjunction with ICAPS 2009).

SCIENTIFIC PUBLICATIONS

H-INDEX

Google Scholar has a good coverage of my publications (especially when compared with ISI Web of Science or Scopus). I currently have an H-index of **42** and about 10451 citations (updated to September 2022).



The Scopus h-index is **28** with about 4566 citations (updated to September 2022).

Remark: The trend in citations is positive with an increasing number of citations in the last years. Quality of content and better venue selection can explain the increase in citations.

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According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.