

University of Naples Federico II - Department of Electrical Engineering and Information Technology Via Claudio, 21, 80125, Naples, NA, IT

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### Research Interests

Quantum Computing (QC) offers the potential to enhance traditional High-Performance Computing (HPC) workloads by leveraging the unique properties of qubits, leading to the emergence of a new computing paradigm: HPC-QC. My research revolves around the dependability of such hybrid systems, from the point of view of reproducibility of computation results, resilience to hardware and software failures, security and privacy of code and data.

### **Education**

**SQMS - Fermilab** Batavia, IL, US

US QUANTUM INFORMATION SUMMER SCHOOL (USQIS)

Aug. 7-15 2023

Torino, IT

### Politecnico di Torino - Dept. of Control and Computer Engineering

Ph.D. IN COMPUTER AND SYSTEMS ENGINEERING

Nov. 2017 - Sept. 2021

Thesis: Sensor-based ICT systems for Smart Societies. Defining guidelines for the correct and scientifically-sound design of a device operating in the IoT domain. Tasks taken into account: data acquisition, data transmission, and data authenticity and safe-storage.

Advisor: Prof. Maurizio Rebaudengo. Committee: Antonio Liotta, Julio Perez, Luca Sterpone, Giovanni Pau, Enrico Natalizio.

#### Eidgenössische Technische Hochschule (ETH) Zürich

Zurich, CH

QUANTUM INFORMATION FOR DEVELOPERS - SUMMER SCHOOL

Sept. 8-12, 2019

### **MITxPRO Professional Certificate Program**

MIT - Online Course

APPLICATIONS OF QUANTUM COMPUTING

Apr. 2018 - Oct. 2018

Politecnico di Torino Torino, IT & Paris, FR

MASTER'S DEGREE IN COMPUTER ENGINEERING

Sept. 2014 - July 2017

Sept. 2010 - Mar. 2015

Design and implementation of a low-cost, high-precision air pollution monitoring IoT device. Master's thesis project carried out at LiP6 - Universitè Pierre et Marie Curie, Paris, France.

Advisors: Prof. Maurizio Rebaudengo in Politecnico di Torino and by Prof. Giovanni Pau in UPMC, Paris.

Politecnico di Torino Torino IT

BACHELOR'S DEGREE IN COMPUTER ENGINEERING

## **Experience**

### University of Naples, Federico II - Department of Electrical Engineering and Information **Technology**

Naples, Italy

ASSISTANT PROFESSOR - RTD-A Dec. 29th, 2023 - Ongoing

PNRR CN1 - National Centre for HPC, Big Data and Quantum Computing, Spoke 9 - Digital Society & Smart Cities.

### University of Illinois, Urbana-Champaign

Urbana-Champaign, IL, US

VISITING POSTDOC

Nov. 27 - Dec. 1 2023

Visiting period in the DEPEND research group at the Coordinated Science Lab. Hosted by Prof. Ravishankar K. Iyer and Dr. Phuong Cao.

#### **SQMS - Fermi National Accelerator Laboratory**

Batavia, II. US

NGI Enrichers - Fellow

Aug. 2023 - Dec. 2023

 CRIT-Q - Cosmic ray impact on transmon qubits: Characterization of transient faults impact caused by cosmic rays on superconducting quantum devices. Expedition made possible by the European Union NGI Enrichers fellowhip.

Supervisor: Dr. Silvia Zorzetti.

### Politecnico di Torino - Department of Control and Computer Engineering

Torino, Italy

POSTDOCTORAL RESEARCH ASSISTANT

Apr 2022 - Dec 2023

- Reliability assessment of Quantum Computing devices, compilation and problem mapping, applications of Quantum Computing for IoT, Industry 4.0 and Financial domains.
- · Investigation on Wireless Sensor Network applications for low-cost air pollution monitoring tasks.

Supervisors: Prof. Maurizio Rebaudengo, Prof. Bartolomeo Montrucchio.

## **Funded Projects**

#### Qubip - Quantum-oriented Update to Browsers and Infrastructures for the PQ Transition

Torino, IT

FUNDING BY: EUROPEAN COMMISSION

Sept. 2023 - Ongoing

Aiding transition to PQC by addressing key components of digital infrastructure, validating practical use cases, and contributing to standardization and policy efforts. Amount:  $\approx$  US \$6'000'000 (our portion  $\approx$  US \$55'000).

### **EQUO - European QUantum ecOsystems**

Torino, IT

FUNDING BY: EUROPEAN COMMISSION

Jan. 2023 - Ongoing

Design, develop and test mature QKD nodes with high TRL level (8-9) with cutting-edge technology developed in Europe, ready for integration in telecommunication networks, both for metro and long-distance scenario. Amount:  $\approx$  US \$6'000'000 (our portion  $\approx$  US \$500'000).

#### **Quantum Computing for Financial Industry**

Torino, IT

FUNDING BY: INTESA SAN PAOLO S.P.A.

Oct. 2021 - Ongoing

Improvement of a quantum algorithm for Credit Risk Analysis. Project conducted in collaboration with IBM Italy. Amount: undisclosed.

NGI - Next Generation Internet Enrichers - Transatlantic Fellowship, Funding to carry out a 5-months

#### **Quantum Computing for Telecommunications Industry**

Torino, IT

FUNDING BY: TIM S.P.A.

2023

June 2019 - Ongoing

Study of possible applications of Quantum Computing in the Telecommunications domain and development of dedicated Quantum Algorithms. Amount:  $\approx$  US \$30'000/year.

#### **Quantum Computing for Automotive Industry**

Torino, IT

FUNDING BY: GENERAL MOTORS

2018 - 2020

Fellowship

Study of applications of Quantum Computing in the automotive sector. Amount: ≈ US \$25'000.

### **Honors & Awards**.

2023	visiting research period at SQMS - Fermilab. Amount: $pprox$ US \$25'000 .	Fellowship
2021	<b>Politecnico di Torino</b> , 3rd Year PhD Award Competition 2021. Amount: $\approx$ US \$1'500.	3rd Prize
2020	<b>Politecnico di Torino</b> , 2nd Year PhD Award Competition 2020. Amount: $\approx$ US \$1'500.	3rd Prize
2020	IBM Quantum, Challenge 2020 Achievement.	IBM Quantum
		Challenge Badge
2019	IBM Quantum, Qiskit Advocate Badge.	Qiskit Advocate
		Badge
2019	IBM Qiskit Camp Europe 2019 - Quantum Computing Hackathon, Winning team member, "Quantum	
	Synth: a quantum-computer-based music synthesizer". Team composed by: Costa Hamido, O.; Ghazi Vakili,	Community Choice
	M.; Giusto, E.; Baiardi, A.; and Cirillo, G.A. Video description available here. Related conference publication	Award
	available here.	

# **Publications - Journal papers**

\_\_\_\_\_ Complete list at  $rac{rac{1}{2}}{1}$ 

### **Understanding Logical-Shift Error Propagation in Quanvolutional Neural Networks**

IEEE Transactions on Quantum Engineering (Impact Factor: 4.4)

2024

M. Vallero, E. Dri, E. Giusto, B. Montrucchio and P. Rech; https://doi.org/10.1109/TQE.2024.3372880

### **Quantum Computing in Finance: The Intesa Sanpaolo Experience**

IEEE ENGINEERING MANAGEMENT REVIEW

2024

R. Sotelo, D. Corbelletto, E. Dri, E. Giusto and B. Montrucchio; https://doi.org/10.1109/EMR.2024.3373796

### The 2nd Workshop on Quantum in Consumer Technology At IEEE Quantum Week 2023

IEEE CONSUMER ELECTRONICS MAGAZINE

2024

R. Sotelo, E. Giusto, Y. Nakamura and J. Wang; https://doi.org/10.1109/MCE.2024.3407740

# A Systematic Methodology to Compute the Quantum Vulnerability Factors for Quantum Circuits

IEEE Transactions on Dependable and Secure Computing (Impact Factor: 7.3)

2023

D. Oliveira, E. Giusto, B. Baheri, Q. Guan, B. Montrucchio, P. Rech; https://doi.org/10.1109/TDSC.2023.3313934 - Citations: 2

### A More General Quantum Credit Risk Analysis Framework

MDPI ENTROPY (IMPACT FACTOR: 2.7)

2023

E. Dri, A. Aita, E. Giusto, D. Ricossa, D. Corbelletto, B. Montrucchio, R. Ugoccioni; Volume 25, number 4, 2023. https://doi.org/10.3390/e25040593 - Citations: 2

# Air-to-Ground Transmission and Near Real-Time Visualization of FBG Sensor Data via Cloud Database

IEEE SENSORS JOURNAL (IMPACT FACTOR: 4.3)

2022

A. Marceddu, G. Quattrocchi, A. Aimasso, E. Giusto, L. Baldo, M. Ghazi Vakili, M. D. L. Dalla Vedova, B. Montrucchio, P. Maggiore; https://doi.org/10.1109/JSEN.2022.3227463 - Citations: 4.

#### A fuzzy control system for energy-efficient wireless devices in the Internet of vehicles

WILEY INTERNATIONAL JOURNAL OF INTELLIGENT SYSTEMS (IMPACT FACTOR: 7 - ACCEPTANCE RATE: 12%.)

2021

M. Collotta, R. Ferrero, E, Giusto, M. Ghazi Vakili, J. Grecuccio, X Kong, I. You; https://doi.org/10.1002/int.22353. Citations: 12.

### A Densely-Deployed, High Sampling Rate, Open-Source Air Pollution Monitoring WSN

IEEE Transactions on Vehicular Technologies (Impact factor: 6.8)

2020

B. Montrucchio, E. Giusto, M. Ghazi Vakili, S. Quer, C. Fornaro; Volume 69, Issue 12. https://doi.org/10.1109/TVT.2020.3035554 - Citations: 40.

#### Combining Blockchain and IoT: Food-Chain Traceability and Beyond

MDPI ENERGIES (IMPACT FACTOR: 3.2)

2020

J. Grecuccio, E. Giusto, F. Fiori, M. Rebaudengo; *Combining Blockchain and IoT: Food-Chain Traceability and Beyond*. Volume 13 (15), 3820. https://doi.org/10.3390/en13153820 - Citations: 60.

### **Quantum pliers cutting the Blockchain**

IEEE IT Professional (IMPACT FACTOR: 2.6)

2020

E. Giusto, M. Ghazi Vakili, F. Gandino, C. Demartini, B. Montrucchio; Vol.22, Issue 6. https://doi.org/10.1109/MITP.2020.2974690 - Citations: 1.

# **Publications - Conference Proceedings**

# Quantum Kernel Estimation With Neutral Atoms For Supervised Classification: A Gate-Based Approach

Bellevue, WA, US

IEEE International Conference on Quantum Computing and Engineering (QCE23)

M. Russo, E. Giusto, B. Montrucchio; https://doi.org/10.1109/QCE57702.2023.00032.

Sept. 17–22, 2023

\_\_\_\_\_ Complete list at  $rac{orall}{N}$  here

#### BBQ-mIS: a parallel quantum algorithm for graph coloring problems

WIHPQC @ IEEE INTERNATIONAL CONFERENCE ON QUANTUM COMPUTING AND ENGINEERING (QCE23)

Bellevue, WA, US Sept. 17–22, 2023

C. Vercellino, G. Vitali, P. Viviani, E. Giusto, A. Scionti, A. Scarabosio, O. Terzo, B. Montrucchio; WIHPQC, Third International Workshop on Integrating High-Performance and Quantum Computing, co-located with QCE23. https://doi.org/10.1109/QCE57702.2023.10198.

### **Towards An End-To-End Approach For Quantum Principal Component Analysis**

Bellevue, WA, US

QML @ IEEE INTERNATIONAL CONFERENCE ON QUANTUM COMPUTING AND ENGINEERING (QCE23)

Sept. 17-22, 2023

E. Dri, A. Aita, T. Fioravanti, G. Franco, E. Giusto, G. Ranieri, D. Corbelletto, B. Montrucchio; International Workshop on Quantum Machine Learning: From Foundations to Applications, co-located with QCE23. https://doi.org/10.1109/QCE57702.2023.10175. Citations: 1.

### Understanding the Effect of Transpilation in the Reliability of Quantum Circuits

Bellevue, WA, US

STABLEQ @ IEEE INTERNATIONAL CONFERENCE ON QUANTUM COMPUTING AND ENGINEERING (QCE23)

Sept. 17-22, 2023

N. Dilillo, E. Giusto, E. Dri, B. Baheri, Q. Guan, B. Montrucchio, P. Rech; Quantum System Stability and Reproducibility Workshop, co-located with QCE23. https://doi.org/10.1109/QCE57702.2023.10220

# Neural optimization for quantum architectures: graph embedding problems with Distance Encoder Networks

Torino, IT

IEEE INTERNATIONAL COMPUTER SOFTWARE AND APPLICATIONS CONFERENCE (COMPSAC) (ACCEPTANCE RATE: 26%)

June 26-30, 2023

C. Vercellino, G. Vitali, P. Viviani, A. Scionti, A. Scarabosio, O. Terzo, E. Giusto, B. Montrucchio; https://doi.org/10.1109/COMPSAC57700.2023.00058.

### Comparison of heuristic approaches to PCI planning for Quantum Computers

Las Vegas, NV, US

IEEE INTERNATIONAL CONFERENCE ON CONSUMER ELECTRONICS (ICCE23)

Jan. 6-8, 2023

G. Barillaro, A. Boella, F. Gandino, M. Ghazi Vakili, E. Giusto, G. Mondo, B. Montrucchio, A. Scarabosio, A. Scionti, O. Terzo, G. Vitali; https://doi.org/10.1109/ICCE56470.2023.10043394. Citations: 1.

### **Towards practical Quantum Credit Risk Analysis**

Teddington, UK Sept. 13-14, 2022

NPL JOINT SYMPOSIUM ON QUANTUM TECHNOLOGIES

E. Dri, E. Giusto, A. Aita, B. Montrucchio; https://doi.org/10.1088/1742-6596/2416/1/012002. Citations: 2.

### Neural-powered unit disk graph embedding: qubits connectivity for some QUBO problems

Broomfield, CO, US

IEEE INTERNATIONAL CONFERENCE ON QUANTUM COMPUTING AND ENGINEERING (QCE22)

Sept. 18-23, 2022

C. Vercellino, P. Viviani, G. Vitali, A. Scionti, A. Scarabosio, O. Terzo, E. Giusto, B. Montrucchio;

https://doi.ieeecomputersociety.org/10.1109/QCE53715.2022.00038

#### QuFI: a Quantum Fault Injector to Measure the Reliability of Qubits and Quantum Circuits

Baltimore, MD, US

IEEE/IFIP International Conference on Dependable Systems and Networks (DSN22) (Acceptance rate: 18%)

June 27-30, 2022

D. Oliveira, E. Giusto, E. Dri, N. Casciola, B. Baheri, Q. Guan, B. Montrucchio, P. Rech; https://doi.org/10.1109/DSN53405.2022.00025. Citations: 5.

#### Quantum synth: a quantum-computing-based synthesizer

Graz AT

ACM International Conference on Audio Mostly (AM'20)

Sept. 15-17, 2020

O. Costa Hamido, G.A. Cirillo, E. Giusto; Pages 265-268. https://doi.org/10.1145/3411109.3411135. Citations: 10.

### **Talks**

### University of Illinois, Urbana-Champaign

Urbana-Champaign, IL, US

NOISY QUBITS: RELIABILITY ISSUES IN THE QUANTUM ERA

Nov. 29th, 2023

· Presentation on noise-related issues in Quantum Computing and description of tools to analyze them. Presentation given at the attention of Prof. Ravishankar K. Iyer and the DEPEND research group.

#### University of Illinois, Chicago

Chicago, IL, US

NOISY QUBITS: RELIABILITY ISSUES IN THE QUANTUM ERA

Nov. 14th, 2023

· Presentation on noise-related issues in Quantum Computing and description of tools to analyze them. Presentation given at the attention of the Quantum Information Science Society at UIC.

Porto, PT

QUANTUM COMPUTING RELIABILITY: PROBLEMS, TOOLS, AND POTENTIAL SOLUTIONS

June 27th, 2023

· Tutorial on Quantum Computing Fault Injection. Co-organized with my colleagues Prof. Paolo Rech (UniTn), Prof. Devesh Tiwari (Northeastern U.), Dr. Emanuele Dri (PoliTo), Prof. Qiang Guan and Dr. Betis Baheri (Kent State U.).

### INFN (National Institute for Nuclear Physics), La Sapienza University

Rome, IT

Understanding transient fault propagation in superconducting quantum circuits

Nov. 21st, 2022

· Seminar on Quantum Computing Fault Injection. Presentation given at the attention of Dr. Laura Cardani and her research group.

#### **NASA Goddard Space Flight Center**

Greenbelt, MD, US

Understanding transient fault propagation in superconducting quantum circuits

June 30th, 2022

Seminar on Quantum Computing Fault Injection. Presentation given at the attention of Dr. Michael Campola and his collaborators.

### **New York University, Center for Quantum Phenomena**

NYC. NY. US

Understanding transient fault propagation in superconducting quantum circuits

June 23rd, 2022

· Seminar on Quantum Computing Fault Injection. Presentation given at the attention of Prof. Javad Shabani and his research group.

### Tecnology Biennial - Politecnico di Torino - Open Campus Event

Torino, IT

QUANTUM COMPUTING DEMO

Nov. 7-10, 2019

 Booth activity dedicated to Quantum Computing, presentation of practical use cases for the financial domain. In collaboration with Intesa Sanpaolo S.p.A..

#### Technology Festival - Politecnico di Torino - Open Campus Event

QUANTUM COMPUTING DEMO

Politecnico di Torino

· Booth activity dedicated to Quantum Computing, presentation of Quantum synth, the Quantum Computer-based Synthesizer.

QUANTUM COMPUTING PERSPECTIVES

June 20, 2019

Nov. 7-10, 2019

· Presentation on practical applications of Quantum Computing. Presentation given at the attention of Prof. Matteo Sonza Reorda and the CAD&Reliability Research Group



#### **Master Degree** University of Naples Federico II, IT

INSTRUCTOR

Mar. 2024 - July 2024

· Quantum Computation Mod II - Architectures and High performance (Physics Major - English Language)

- AY 2023/2024.

### $2^{nd}$ level Master Course on Quantum Communication and Computing

Politecnico di Torino, IT

LECTURER

• Module on Quantum Annealing. (Italian Language).

Politecnico di Torino, IT

**Master Degree** TEACHING ASSISTANT

Oct. 2019 - Oct. 2020

Jan. 2023

Computer Architectures (CS+EE major - English Language)

- AY 2019/2020. Teaching reviews: 3.26/4.

**Bachelor Degree** Politecnico di Torino, IT

TEACHING ASSISTANT

Oct. 2018 - Ongoing

• Introduction to Computer Science (all majors - Italian Language).

- AY 2018/2019. Teaching reviews: 3.19/4.

• Algorithms and Programming (EE major - Italian Language)

- AY 2020/2021. Teaching reviews: 3.31/4.

- AY 2021/2022. Teaching reviews: 3.38/4.

- AY 2022/2023. Teaching reviews: 3.204/4.

Programming Techniques (CS major - English Language)

- AY 2020/2021. Teaching reviews: 3.225/4.

- AY 2021/2022. Teaching reviews: 3.31/4.

- AY 2022/2023. Teaching reviews: 3.056/4.

#### Master Course - New Technologies 4.0 (for Leonardo S.p.A.) Politecnico di Torino, IT

LECTURER

Nov. 2017 - Ongoing

• Lesson on Radio Frequency IDentification (RFID), A.Y. 2019/2020. (Italian Language).

### Samsung Innovation Camp (for Samsung Italy)

Torino, IT

LECTURER

MENTOR

Nov. - Dic. 2022

• 10 hours course on Internet of Things. (Italian Language).

**Torino High Schools** Politecnico di Torino, IT

LECTURER Apr. 2022 - Ongoing

· Computer Engineering is(/and) Creativity. Course to foster female enrollment in computer engineering degree. (Italian Language).

## **Mentoring**

#### **Graduate Students** Politecnico di Torino, IT

• Emanuele Dri (PhD student), Application of QC to the Financial domain.

• Marco Russo (PhD student), Quantum Machine Learning Techniques for Classification.

- Chiara Vercellino (PhD student), Embedding on Neutral Atom Quantum Machines.
- Giacomo Vitali (PhD student). QC + HPC integration strategies.
- Gustavo Ramirez (PhD student). Low-cost air pollution monitoring HW platforms.
- Pietro Chiavassa (PhD student). Data analysis and reliability in air pollution monitoring applications.
- · Antonio Marceddu (PhD student). SW tools for structural monitoring.
- Emanuela Allocca, Quantum algorithms for financial problems.
- Lorenzo Bergadano, Quantum machine learning approaches for sensor calibration.
- Gabriele Iurlaro, Quantum Machine Learning on Neutral Atoms Machines.
- Nadir Casciola, Fault injection for Quantum Circuits.
- Nicola Dilillo (now PhD student @ Politecnico di Torino), Transient fault detectors for quantum circuits.
- Davide Integlia, Quantum paths finding algorithm.
- Marzio Vallero (now PhD student at University of Trento), Quantum Machine Learning Fault Injection.
- · Giusy Iaria (now PhD student @ Politecnico di Torino) Quantum Machine Learning for Image Classification.
- · Alessandra Musone, Big Data and Quantum Computing.
- · Naouras Latiri. Exploiting LoRaWan for air pollution monitoring.
- Gabriele Telesca. Mobile app development for crowd-sensing monitoring.
- Cosmin Solomon. Exploiting Bluetooth for crowd-sensing monitoring.

Apr. 2023 - Ongoing

MENTORING AND ADMINISTRATIVE SUPPORT

· Aiding the establishment of a student organization dedicated to Quantum Computing.

### CLIK @ PoliTo - Contamination Lab Innovation Kitchen

Politecnico di Torino, IT

2019 - 2023

MENTOR FOR STUDENT MULTIDISCIPLINARY INDUSTRIAL PROJECTS

- TOSA Challenge, AY 2019/2020. Topic: Industrial pallet de-wrapping machine.
- Sea&Symphony Challenge, AY 2021/2022. Topic: Innovative Safe Packaging to ship large and fragile electro-mechanical devices.
- Lavazza Challenge, AY 2022/2023. Innovative and sustainable packaging, delivery and closed-circle solutions for coffee.

### Service

#### Politecnico di Torino - Department of Control and Computer Engineering

Torino, IT

**DIVERSITY AND INCLUSION BOARD MEMBER** 

Jan. 2021 - Ongoing

• Member of the Departmental Board on Diversity and Inclusion. Definition and implementation of practices towards gender equality in academia.

Organization of high-school outreach courses to foster female enrollment in computer engineering degree.

### Politecnico di Torino - Department of Control and Computer Engineering

Torino, IT

RESEARCH ASSISTANTS REPRESENTATIVE

Nov. 2022 - Aug. 2023

Representative for the body of Research Assistants affiliated with the Department. Participating to Department board meetings with voting
rights.

#### **CTE NEXT - House of Emerging Technologies**

Torino, IT

TECHNICAL REPRESENTATIVE FOR POLITECNICO DI TORINO

Nov. 2021 - Aug. 2023

• Technical Representative for PoliTo within the CTE NEXT consortium for technology transfer. Support in the definition and development of urban experimentation projects regarding: smart road, urban air mobility, industry 4.0, innovative urban services. Technologies exploited: 5G, IoT, Big Data, AI, Blockchain. Website: https://ctenext.it/en/

# **Research Community Engagement**

### IEEE Quantum Week (QCE) 2024

MEMBER AT LARGE

- Technical Committee Member for Quantum Technologies and Systems Engineering (QTEM) track.
- Technical Committee Member for Quantum Applications (QAPP) track.
- Organizing Committee Member for 3rd Workshop on Quantum in Consumer Technology, Workshop website here.
- Organizing Committee Member for 1st Workshop on Dependability Challenges in Hybrid Classical-Quantum Computing Systems, Workshop website here

### IEEE International Conference on Consumer Electronics (ICCE) 2024

TRACK CHAIR

• Track: Quantum In Consumer Technology.

#### IEEE Quantum Week (QCE) 2023

MEMBER AT LARGE

- Technical Committee Member for Quantum Technologies and Systems Engineering (QTEM) track.
- Technical Committee Member for Quantum System Stability and Reproducibility Workshop.
- Organizing Committee Member for 2nd Workshop on Quantum in Consumer Technology, Workshop agenda here.

### **IEEE Consumer Technology Society**

TECHNICAL COMMITTEE MEMBER

• Technical Committee Member for Quantum in Consumer Technology.

#### **Peer Reviewing - Journals**

- IEEE Transaction on Nuclear Science
- IEEE Internet of Things
- IEEE Consumer Electronics Magazine
- IEEE Transactions on Quantum Engineering
- IEEE Transactions on Services Computing
- Elsevier Transportation Research
- Elsevier Internet of Things
- · Springer Nature

### **Peer Reviewing - Conferences**

- ACM Design Automation and Test in Europe (DATE) 2024
- IEEE Quantum Computing and Engineering (QCE) 2023
- IEEE International Conference on Consumer Electronics (ICCE) 2022, 2023, 2024

#### **Society Memberships**

- · ACM member
- IEEE member Quantum Community

## **Open Source Projects**

QuFI Torino, IT

DEVELOPER June 2021 - Ongoing

• Development of QuFI - Quantum Fault Injector. Flexible tool highlighting the susceptibility of qubits to various noise sources. Related paper accepted at DSN 22.

**Quantum Synth** Schilthorn, CH

DEVELOPER

Sept. 12-15, 2019 • Development of Quantum synth, the Quantum Computer-based Synthesizer. The project won the Community Choice Award at IBM Qiskit Camp

Europe 2019. Video description available here. Related paper accepted at AM'20.

### **General Information**

Mother tongue Italian **English Language Certification** TOEFL 101/120 Citizenship Italian