# ALICE RAFFAELE

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Department of Mechanical, Energy,
and Management Engineering,
University of Calabria, Italy &
Department of Information Engineering,
University of Padova, Italy

araffaele@dei.unipd.it
Github: aliceraffaele
Skype: alice raffaele



## Indexed research

ORCID https://orcid.org/0000-0003-1323-7544.

Google https://scholar.google.com/citations?user=et5m628AAAAJ&hl=it&oi=ao.

Scholar

# Current positions

**Postdoctoral researcher** at the Department of Mechanical, Energy, and Management Engineering of the University of Calabria, Via Pietro Bucci 46C, 87036 Rende, Italy.

**Visiting researcher** at the Department of Information Engineering of the University of Padova, Via Giovanni Gradenigo 6b, 35135 Padova, Italy.

**Contract professor** at the Department of Computer Science of the University of Verona, Strada le Grazie 15, 37134 Verona, Italy.

#### Research interests

Mathematical programming, combinatorial optimization, exact algorithms, meta-heuristics, routing problems under uncertainty, scheduling and temporal networks, enumeration problems, operations research in education.

#### Research

Apr, 2023 - Postdoctoral researcher in Operations Research, University of Calabria, Italy.

present Mathematical Programming, Combinatorial Optimization, Routing problems under uncertainty.

Advisors: Prof. Demetrio Laganà and Prof. Roberto Musmanno

Apr., 2022 - Postdoctoral researcher in Operations Research, University of Verona, Italy.

Mar, 2022 Mathematical Programming, Combinatorial Optimization, Algorithms, Temporal networks.

Advisor: Prof. Romeo Rizzi

Apr., 2021 - Research fellow in Operations Research, University of Verona, Italy.

Mar, 2022 Mathematical Programming, Combinatorial Optimization, Algorithms, Temporal networks.

Advisor: Prof. Romeo Rizzi

Nov, 2017 - Ph.D. in Mathematics (Operations Research), University of Trento and University of Verona,

Mar, 2022 Italy.

Combinatorial Optimization, Mathematical Programming, Algorithms.

Thesis: "From optimization to listing: theoretical advances in some enumeration problems".

Advisor: Prof. Romeo Rizzi Defence date: March 30, 2022.

#### Visitings

Apr, 2023 - Visiting researcher, University of Padova, Padova, Italy.

present Mathematical Programming, Combinatorial Optimization, Routing problems under uncertainty.

Advisor: Dr. Roberto Roberti.

- Oct, 2019 Visiting researcher, National Institute of Informatics, Tokyo, Japan.
  - Dec, 2019 Enumeration algorithms and listing problems.

Advisor: Prof. Takeaki Uno.

- May, 2019 Visiting researcher, Université Paris-Est Marne-la-Vallée, Paris, France.
- June, 2019 Bioinformatics and string algorithms (problems related to permutation patterns and graphs). Advisors: Prof. Stéphane Vialette and Prof. Laurent Bulteau.
- Sep, 2015 Master's thesis intern, Université Laval, Québec City, Canada.
  - Jan, 2016 Vehicle routing problem and metaheuristics. Advisors: Prof. Jean-François Côté and Prof. Renata Mansini.

    Reviewing activity for journals
    - 2021 AIRO Springer Series, Discrete Applied Mathematics, SN Operations Research Forum. present

### Education

- Jun, 2018 **24 CFU Teacher Training**, *University of Verona*, Italy.
- Oct, 2018 7 modules in the areas of Pedagogy, Special pedagogy and Didactics of inclusion, Psychology, Anthropology, Teaching methodologies and technologies.
- Oct, 2013 Master of Science, Computer Science and Engineering, *University of Brescia*, Italy, 110/110

Mar, 2016 cum laude, March 16, 2016.

Thesis: "Time constrained Vehicle Routing Problem"

Advisor: Prof. Renata Mansini.

- Sep, 2010 Bachelor of Science, Computer Science and Engineering, University of Brescia, Italy,
  - Oct, 2013 108/110, October 30, 2013.

Thesis: "La cifratura omomorfica" (i.e., "The homomorphic encryption")

Advisor: Prof. Luca Giuzzi.

- Sep, 2005 High School Scientific Diploma, Liceo Scientifico Statale G. Galilei, Palazzolo sull'Oglio (BS),
  - Jun, 2010 Italy, 92/100, June, 2010.

Thesis: "Alla ricerca di una nuova identità — La figura della donna nella letteratura dalla Rivoluzione Francese in poi" (i.e., "Searching for a new identity – The role of women in literature, from the French Revolution and on").

## Teaching

- Oct, 2022 Mathematics for Decisions (contract professor), University of Verona.
  - Sep, 2023 Master's degree in *Mathematics* (English, 48 hours).
- Jan, 2023 Advances in Operations Research: Mathematical Programming (lecturer), University of Feb. 2023 Trento.

Ph.D. course in *Mathematics* (English, 12 hours, Zoom).

- Oct, 2022 ROAR III (creator, designer, and experimenter), IIS Antonietti, Iseo, Brescia, Italy.
  - Jan, 2023 Path for Transversal Skills and Orientation in collaboration with Prof. Marinella Picchi, Dr. Alessandro Gobbi (University of Brescia), Dr. Eugenia Taranto and Dr. Gabriella Colajanni (University of Catania). Third part of a three-year project-work to introduce operations research to Grades 10–12. Focus on implementation and resolution of optimization problems by means of Python and the library PuLP. For further details, see https://github.com/aliceraffaele/ROAR.
- Mar, 2022 Discrete Optimization and Decision Making (contract professor), University of Verona.
  - Mar, 2023 Master's degree in *Data Science* (English, 32 hours, classroom + Zoom).
- Mar, 2022 Operations Research (contract professor), University of Verona.
  - Jun, 2022 Bachelor's degree in Applied Mathematics (Italian, 8 hours, classroom + Zoom).
- Jan, 2022 ROAR II (creator, designer, and experimenter), IIS Antonietti, Iseo, Brescia, Italy.
- Apr, 2022 Path for Transversal Skills and Orientation in collaboration with Prof. Marinella Picchi, Dr. Alessandro Gobbi (University of Brescia), Dr. Eugenia Taranto and Dr. Gabriella Colajanni (University of Catania). Second part of a three-year project-work to introduce operations research to Grades 10–12. Focus on graph theory and network applications. For further details, see https://github.com/aliceraffaele/ROAR.

- Oct, 2021 Mathematics for Decisions (contract professor), University of Verona.
  - Jan, 2022 Master's degree in *Mathematics* (English, 8 hours, classroom + Zoom).
- Mar, 2021 ROAR I (creator, designer, and experimenter), IIS Antonietti, Iseo, Brescia, Italy.
  - May, 2021 Path for Transversal Skills and Orientation in collaboration with Prof. Marinella Picchi, Dr. Alessandro Gobbi (University of Brescia), Dr. Eugenia Taranto and Dr. Gabriella Colajanni (University of Catania). First part of a three-year project-work to introduce operations research to Grades 10–12. Focus on mathematical modelling, linear and integer programming. For further details, see https://github.com/aliceraffaele/ROAR.
- Oct, 2020 Mathematics for Decisions (teaching assistant), University of Verona.
  - Jan, 2021 Master's degree in *Mathematics* (English, 24 hours, classroom + Zoom).
- Mar, 2020 Operations Research (teaching assistant), University of Verona.
  - Jun, 2020 Bachelor's degree in Applied Mathematics (Italian, 24 hours, Zoom).
- Mar, 2020 Mathematics for Decisions (teaching assistant), University of Verona.
  - Jun, 2020 Master's degree in Mathematics (English, 24 hours, Zoom).
  - Sep, 2019 **KidsUniversity (trainer)**, *University of Verona*.

    Activities for classes of primary and secondary schools (8 hours).
- Mar, 2019 Operations Research (teaching assistant), University of Verona.
  - Jun, 2019 Bachelor's degree in Applied Mathematics (24 hours).
- Nov, 2018 KidsUniversity (trainer), University of Verona.
  - Dec, 2018 *Problem solving in primary schools*. Mathematics and informatics activities in thirteen classes in three primary schools in Bovolone and Dossobuono, Verona (26 hours).
  - Sep, 2018 **KidsUniversity (trainer)**, *University of Verona*.

    Activities for classes of primary and secondary schools (14 hours).
- Mar, 2018 Operations Research (teaching assistant), University of Verona.
  - Jun, 2018 Bachelor's degree in Applied Mathematics (24 hours).
- Nov, 2017 A hands-on tutorial on LP and ILP modeling (lecturer), University of Verona.
  - Dec, 2017 Mini-course in the Master's degree in Mathematics (20 hours).
  - Apr, 2016 Adaptive Large Neighborhood Search (ALNS) (lecturer), University of Brescia. Tutorial lecture in the Optimization Algorithms course by Prof. Renata Mansini (2 hours).

#### Advising

- Sep, 2023 Malina Elena Gradinaru (advisor), University of Verona.
  - present Master's thesis in Mathematics.

Co-advisor: Dr. Roberto Roberti (University of Padova).

- Jul, 2019 Enrica Pini (co-advisor), University of Verona.
- Mar, 2020 Master's thesis in Mathematics.

Advisor: Prof. Romeo Rizzi.

#### Publications

## Journal Articles

- 2023 Matteo Zavatteri, **Alice Raffaele**, Dario Ostuni, and Romeo Rizzi. An Interdisciplinary Experimental Evaluation on the Disjunctive Temporal Problem. *Constraints*, 2023.
- 2023 **Alice Raffaele** and Matteo Zavatteri. Reducing the number of disjuncts in dtps. *Information and Computation*, volume 293, page 105048. Elsevier, 2023.
- 2023 Gabriella Colajanni, Alessandro Gobbi, Marinella Picchi, Alice Raffaele, and Eugenia Taranto. An Operations Research–Based Teaching Unit for Grade 11: The ROAR Experience, Part II. INFORMS Transactions on Education. INFORMS, 2023.

- 2022 Eugenia Taranto, Gabriella Colajanni, Alessandro Gobbi, Marinella Picchi, and **Alice Raffaele**. Fostering students' modelling and problem-solving skills through operations research, digital technologies and collaborative learning. *International Journal of Mathematical Education in Science and Technology*, pages 1–42. Taylor & Francis, 2022.
- Gabriella Colajanni, Alessandro Gobbi, Marinella Picchi, **Alice Raffaele**, and Eugenia Taranto. An Operations Research–Based Teaching Unit for Grade 10: The ROAR Experience, Part I. *INFORMS Transactions on Education*. INFORMS, 2022.
- 2021 **Alice Raffaele** and Alessandro Gobbi. Teaching Operations Research Before University: A Focus on Grades 9–12. *SN Operations Research Forum*, volume 2, page 13, 2021.
- 2021 **Alice Raffaele**. Becoming Visible: Why We Should be Better Communicators Now. *SN Operations Research Forum*, volume 2, page 7, 2021.
- 2021 Lavinia Amorosi, Rossana Cavagnini, Veronica Dal Sasso, Martina Fischetti, Valentina Morandi, and **Alice Raffaele**. Women Just Wanna Have OR: Young Researchers Interview Expert Researchers. *SN Operations Research Forum*, volume 2, page 2, 2021.
- 2020 Rossana Cavagnini, Veronica Dal Sasso, Valentina Morandi, and **Alice Raffaele**. How to Organize an OR Workshop: the AIROYoung Experience. *SN Operations Research Forum*, volume 1, page 34, 2020.

#### **Book Chapters**

Alice Raffaele, Matteo Zavatteri, Fabio Bazzoli, Marco Gussago, and Romeo Rizzi. A Two-Phase Approach to Evaluate and Optimize an Interlibrary Loan Service: The Case Study of Provincia di Brescia. In Matteo Cosmi, Lorenzo Peirano, Alice Raffaele, and Marcella Samà, editors, Operations Research and Data Science in Public Services, pages 17–33, Cham, 2023. Springer International Publishing.

#### In Conference Proceedings

- 2021 Dario Ostuni, Alice Raffaele, Romeo Rizzi, and Matteo Zavatteri. Faster and Better Simple Temporal Problems. Proceedings of the 35th AAAI Conference on Artificial Intelligence, 2021.
  Technical Reports
- 2019 Jean-François Côté, Renata Mansini, and **Alice Raffaele**. *Tactical Time Window Management in Attended Home Delivery*. CIRRELT, 2019.
- 2019 Dusan Bikov, Raul Kangro, Harald Kitzmann, Petre Lameski, Alice Raffaele, and Zlatko Varbanov. Usage based insurance. European Study Group with Industry ESGI 151, 2019.
  Submitted Works
- Jean-François Côté, Renata Mansini, and **Alice Raffaele**. Multi-Period Time Window Assignment for Attended Home Delivery. January 2023. Invited revision in April 2023.
- 2023 Gabriella Colajanni, Alessandro Gobbi, Marinella Picchi, **Alice Raffaele**, and Eugenia Taranto. Competitive versus collaborative learning: enhancing problem-solving skills through an optimization problem-based challenge. September 2023.
- 2021 **Alice Raffaele**, Romeo Rizzi, and Takeaki Uno. Listing the bonds of a graph in  $\tilde{O}(n)$ -delay. June 2021.
- 2021 **Alice Raffaele** and Romeo Rizzi. A new decomposition for the Monotone Boolean Duality problem. July 2021. Invited revision in August 2023.

## Working Papers

- 2024 Demetrio Laganà, Alice Raffaele, and Roberto Roberti. TBD (on robust optimization). 2024.
- 2024 Gabriella Colajanni, Alessandro Gobbi, Marinella Picchi, **Alice Raffaele**, and Eugenia Taranto. TBD (on a longitudinal study on the ROAR project). 2024.

- 2023 **Alice Raffaele**, Romeo Rizzi, and Matteo Zavatteri. TBD (on the early schedule in temporal networks). 2023.
- 2023 Gabriella Colajanni, Alessandro Gobbi, Marinella Picchi, **Alice Raffaele**, and Eugenia Taranto. An Operations Research–Based Teaching Unit for Grade 12: The ROAR Experience, Part III. 2023.

## **Talks**

#### Conferences

- Sep, 2023 A two-phase approach to evaluate and optimize an interlibrary loan service: the case study of Provincia di Brescia at the International Conference on Optimization and Decision Science, AIRO-ODS 2023, September 04–07, 2023, Ischia, Italy.
- Sep, 2023 An Operation Research based Didactic Unit for Grade 12: The ROAR Experience, Part III at the International Conference on Optimization and Decision Science, AIRO-ODS 2023, September 04–07, 2023, Ischia, Italy.
- Nov, 2022 ROAR: How to improve Grade 10-12 interest and motivation in mathematics through a learning path based on Operations Research at the 4th Scientix International Conference, November 18-19, 2022, Online.
- Sep, 2022 On Vertex Enumeration and Hypergraph Dualization: relevance in combinatorial optimization and a new decomposition approach at the International Conference on Optimization and Decision Science, AIRO–ODS 2022, August 30 September 02, 2022, Florence, Italy.
- Feb, 2022 The case study of Province of Brescia: analysis, evaluation, and improvement of an interlibrary loan service at the 6th AIROYoung Workshop Operations Research and Data Science in Public Services (6AYW), February 23–25, 2022, Rome (hybrid), Italy.
- Sep, 2021 An Operation Research based Didactic Unit for Grade 10: The ROAR Experience, Part I at the International Conference on Optimization and Decision Science, AIRO-ODS 2021, September 14–17, 2021, Rome, Italy.
- Feb, 2021 Teaching Operations Research Before University: a focus on Grades 9–12 at the 5th AIROYoung Workshop Optimization and Data Science: Trends and Applications (4AYW), February 10–12, 2021, Naples (virtual), Italy.
- Dec, 2020 Faster listing of bonds based on biconnectivity at the 4th International Workshop on Enumeration Problems & Applications, WEPA 2020, December 6–10, 2020, Haifa (virtual), Israel.
- Oct, 2019 A new decomposition for the Monotone Boolean Duality problem at the 3rd International Workshop on Enumeration Problems & Applications, WEPA 2019, October 28–31, 2019, Awaji Island, Japan.
- Sep, 2019 Teaching Operations Research before University at the International Conference on Optimization and Decision Science, AIRO–ODS 2019, September 4–7, 2019, Genova, Italy.
- Nov, 2018 A Joint Generation approach for the Vertex Enumeration Problem at the 2nd International Workshop on Enumeration Problems & Applications, WEPA 2018, November 4–8, 2018, Pisa, Italy.
- Sep, 2016 The Stochastic Multi-period Time Windows Assignment Problem at the 46th Annual Conference of the Italian Operations Research Society, September 6–9, 2016, Trieste, Italy.
  Invited
- Oct, 2022 Introduction to graph theory: optimization problems and applications to social networks for the OPS4Math project Optimization and Problem Solving for Teaching of Mathematics, October 4, 2022, Naples, Italy.
- Oct, 2022 Solving optimization problem with GeoGebra for the OPS4Math project Optimization and Problem Solving for Teaching of Mathematics, October 4, 2022, Naples, Italy.

Nov, 2019 *A new decomposition for the Monotone Boolean Duality problem* at RIMS, Kyoto University, November 28, 2019, Kyoto, Japan.

#### Posters

Feb, 2021 Faster and Better Simple Temporal Problems, at the 35th AAAI Conference on Artificial Intelligence, February, 2–9, 2021, Online.

# Courses, schools, seminars and workshops

- Feb, 2023 7th AIROYoung Workshop: Operations Research Beyond Frontier (7AYW), February 15–17, 2023, Milan, Italy.
- Feb, 2022 6th AIROYoung Workshop: Operations Research and Data Science in Public Services (6AYW), February 23–23, 2022, Rome (hybrid), Italy.
- Feb, 2021 AIRO PhD School 2021 & 5th AIROYoung Workshop Optimization and Data Science: Trends and Applications (5AYW), February 8–12, 2021, Naples (virtual), Italy.
- Feb, 2020 4th AIROYoung Workshop: New Advances in Optimization, Machine Learning and Data Science (4AYW), February 5–7, 2020, Bozen, Italy.
- Dec, 2020 2nd Workshop On Graphs and Geometric Algorithms (WOGGA2), National Institute of Informatics, Tokyo, Japan, December 16–18, 2019 (20 hours).
- Mar, 2019 3rd AIROyoung Workshop and 1st AIROYoung PhD School: Advanced Methods in Optimization and Data Science (3AYW), Sapienza University of Rome, Department of Statistics, Rome, Italy, March 26–29 (24 hours).
- Mar, 2019 2nd conference of the EURO Working Group on the Practice of Operations Research, Bologna, Italy, March 11–12, 2019 (16 hours).
- Feb, 2019 First Estonian Study Group with Industry (ESGI 151), University of Tartu, Estonia, February 4–8, 2019 (40 hours).
- Sep, 2018 Modeling Week on Data Driven Decision Making and Optimization (D3EMO), Copenhagen Business School, Denmark, September 03–07, 2018 (40 hours).
- Jul, 2018 *Metodologie di osservazione etnografica in aula e nella scuola*. Lecturer: Prof. Elisa Bellato (University of Verona). Verona, July 24, 30–31, 2018 (18 hours).
- Jul, 2018 *Elementi di didattica generale*. Lecturer: Prof. Giuseppina Messetti (University of Verona). Verona, July 20–21, 23, 26–28, 2018, (36 hours).
- Jul, 2018 Teorie della scuola e della formazione. Lecturer: Prof. Daniele Loro (University of Verona). Verona, July 16–18, 2018 (18 hours)
- Jul, 2018 *Pedagogia e didattica dell'inclusione* Lecturer: Prof. Angelo Lascioli (University of Verona). Verona, July 11–13, 2018 (18 hours).
- Jul, 2018 *Psicologia sociale*. Lecturer: Prof. Sabrina Berlanda (University of Verona). Verona, July 10, July 19 and August 01, 2018 (18 hours)
- Jun, 2018 Psicologia dell'apprendimento scolastico. Lecturer: Prof. Laura Fontecedro (University of Verona).
  - Jul, 2018 Verona, June 28–29 and July 02, 2018 (18 hours).
  - Jun, 2018 Storia e attuale ordinamento delle istituzioni scolastiche. Lecturer: Prof. Mario Gecchele (University of Verona). Verona, June 25–27, 2018 (18 hours).
  - Jun, 2018 The Applications of Linear Programming, University of Trento, Italy, June 18–19, 2018 (8 hours).
  - Jun, 2018 School on Graph Theory (SGT 2018), LIRMM, Sète, France, June 11-15, 2018 (36 hours).
  - May, 2018 International Spring School on Integrated Operational Problems (SSIOP), Université de Troyes, France, May 14–16, 2018 (20 hours).
  - Apr, 2018 Colouring, Flows and Decompositions of Graphs. Lecturer: Edita Macajova (Comenius University, Bratislava, Slovacchia), University of Verona, Italy, April 17–26 2018 (12 hours).

- Apr, 2018 *Introduction to Quantum Information*. Lecturer: Dr. Davide Pastorello. Trento, April May May, 2018 (20 hours).
- Mar, 2018 Neural Networks for Time Series Analysis. Lecturer: Oleksandr Honchar (University of Verona), University of Verona, Italy, March 21–29, 2018 (8 hours).
- Feb, 2018 Stochastic Analysis: From Population Dynamics to Finance. Lecturers: Prof. Luca Di Persio
- May, 2018 (University of Verona), Prof. Simone Scotti (University Paris Diderot, France) and Prof. Zenghu Liu (Beijing Normal University, China), Verona, Italy, February May 2018 (60 hours).
- Jan, 2018 *Mathematical Programming*. Lecturer: Prof. Romeo Rizzi. Trento, January 22 February 02, Feb, 2018 (20 hours).
- Jan, 2018 Introduction to SageMath. Lecturer: prof. Péter Burcsi (Faculty of Informatics, Eötvös Loránd University, Budapest), University of Verona, Italy, January 22–25, 2018 (8 hours).

# Industrial experience

- Nov, 2016 IT manager, Edelweiss Energia S.p.A., Sarnico, Bergamo, Italy.
  - Oct, 2017 Apprenticeship in collaboration with University of Brescia and the Department of Information Engineering. Computer science engineer and system administrator, developer of some internal software, report manager, technical support to other areas of the company.
- May, 2016 Internship, Edelweiss Energia S.p.A., Sarnico (Bergamo), Italy.
  - Oct, 2016 Implementation of ETL scripts to automatic download and load data from several sources; learning of the main company tools and software; technical support to other areas of the company.

#### Collaborations with companies

- May, 2019 **Consultant**, *Provincia di Brescia*, *Brescia*, Italy, Libraries Office. present
- Oct, 2018 **Consultant**, *Consorzio Agrario del Nordest, Verona*, Italy. Mar, 2019
- Oct, 2017 Consultant, InfogestWeb s.r.l., Verona, Italy.
- May, 2020 Joint Project 2018, granted by the University of Verona on the project entitled DAVIDE (Development of Algorithms to Verify Infractions of Driving European laws). Principal Investigator: Prof. Romeo Rizzi.

#### Awards and honors

- Jul, 2022 Selected as **one of the 104 participants** (among 730+ applications) of the first edition of **EU TalentOn**, an initiative by European Commission addressed to early career researchers between 21 and 35 years old.
- Sep, 2016 Awarded of the *AIRO Prize* for the best master thesis related to applications during the **46th Annual Conference of the Italian Operations Research Society** in Trieste, Italy, September 6–9, 2016.
- May, 2015 Awarded of the **Journalist for a day** prize in a national writing contest organized by the National Circuit of School Journalism AlboScuole in Rome, Italy, May 20, 2015.

#### Grants

- Jun, 2023 Recipient of a **conference grant** funded by **Gruppo Nazionale per il Calcolo Scientifico (GNCS-INdAM)** to attend the *International Conference on Optimization and Decision Science*, AIRO–ODS 2023, September 04–07, 2023, Ischia, Italy. 300 €.
- Sep, 2022 **Travel expenses and accommodation** funded by **European Commission** to participate to the first edition of **EU TalentOn** in Leiden, The Netherlands, September 14–18, 2022.
- Jan, 2022 Recipient of a **conference grant** funded by **Gruppo Nazionale per il Calcolo Scientifico (GNCS-INdAM)** to attend the *International Conference on Optimization and Decision Science*, AIRO–ODS 2022, August 30 − September 02, 2022, Florence, Italy. 500 €.

- Feb, 2019 Recipient of **Cost Action TD1409 Travel Grants** to attend the *First Estonian Study Group* with *Industry (ESGI 151)*, University of Tartu, Estonia, February 4–8, 2019. 384.98 €.
- Sep, 2018 Recipient of **COST Action TD1409 Travel Grants** to attend the *Modeling Week on Data Driven Decision Making and Optimization (D3EMO)*, Copenhagen Business School, Denmark, September 3–7, 2018. 400 €.
- Nov, 2017 Recipient of the **Italian PhD Scholarship** to attend the PhD course in Mathematics jointly Mar, 2021 organized by University of Trento and University of Verona. 16350 €/year.
- Sep, 2015 Recipient of the **Scholarship of Excellence** funded by Université Laval, Québec, Canada. 4000 Jan, 2016 CAD.
- Sep, 2015 Recipient of the **Thesis Abroad Scholarship** funded by University of Brescia to develop my Jan, 2016 master's thesis at Université Laval, Québec, Canada. 1500 €.

# Positions of responsibility

- Feb, 2021 **Coordinator** of AIROYoung (Young Chapter of the Italian Operations Research Society). present
  - Feb, 2020 Member of the **Organizing Committee** of the **4th AIROYoung Workshop**, Free University of Bozen, Italy, February 5–7, 2020
- Mar, 2019 **Social media manager and web curator** of AIROYoung. Feb, 2021

# Memberships

- Jan, 2021 Member of **GNCS-INdAM** (National Group for Numerical Analysis Gruppo Nazionale per il present Calcolo Scientifico dell'Istituto Nazionale di Alta Matematica, Sezione Fondamenti di Informatica e Sistemi Informatici).
- Dec, 2020 Member of **AAAI** (Association of the Advancement of Artificial Intelligence). present
- Mar, 2019 Member of **AIROYoung** (Young Chapter of the Italian Operations Research Society). present
- Sep, 2016 Member of **AIRO** (Italian Operations Research Society). present

## Languages

- Italian Mother tongue
- English Professional proficiency
- French Elementary proficiency

# Computer skills

- Programming C, C++, Java, Python, SQL, C#, HTML, Markdown, CSS, PHP, Javascript Languages
- Technologies AMPL, AndroidStudio, Eclipse, Gurobi, LaTeX, MATLAB, Microsoft Office (Word, Excel, Outlook, Powerpoint, Publisher), Microsoft SQL Server, Microsoft Visual Studio, Pentaho Kettle, VMware vSphere, SageMath, SAP Business Objects Desktop Intelligence, Webratio Platform

## Certifications

- Apr, 2017 EPEX Spot Certification
- Jul, 2016 State Professional Qualifying Examination in Engineering (Esame di Stato per l'abilitazione alla professione di Ingegnere Sez. A, Ingegneria dell'Informazione)

May, 2009 PET B1 Preliminary

May, 2008 ECDL license

# Volunteering

Aug, 2021 - MaddMaths! (collaborator and writer).

present Main Italian platform for the dissemination of mathematics.

Website: https://maddmaths.simai.eu

Jan, 2017 – "I MiseraLibri" bookclub (founder and coordinator), Biblioteca comunale Fausto Sabeo,

present Chiari, Brescia, Italy.

Facebook: https://www.facebook.com/groups/GruppoDiLetturaChiari

Google Maps: https://shorturl.at/kquxE

Jan, 2021 – 4th National Meeting of Italian Bookclubs (Creator and member of the organizing com-

Jul, 2021 mittee), Chiari, Brescia, Italy.

Organizer of four Zoom meetings to discuss several typologies and aspects of Italian bookclubs and chair of two of them. Organizer and chair of the 4th National Meeting of Italian Bookclubs, held on June 26th, 2021, at Villa Mazzotti in Chiari (Brescia, Italy)