# Tommaso Mannelli Mazzoli

Curriculum Vitae

### Personal Data

born in Florence (Italy), 1993-09-22 Italian Citizenship

## Education

Since 2021 Ph.D. Student in Computer Science, TU Wien, Vienna (Austria).

Advisor: Nysret Musliu

2019 – 2020 Master of Science in Mathematical Engineering, Universidad Complutense

Madrid, Madrid (Spain), Double degree.

Advisor: Angel Felipe Ortega

2018 – 2020 Master of Science in Applied Mathematics, University of study, Florence (Italy).

Advisor: Stefania Bellavia

Thesis topic: The Quadratic Assignment Problem, Metaheuristic approaches

Area of Concentration: Combinatorial Optimisation

2013 – 2017 Bachelor of Science in Mathematics, University of study, Florence (Italy).

Advisor: Andrea Colesanti

Thesis topic: "Integration in finite terms: The Liouville's Theorem"

Area of Concentration: Differential Algebra

#### Research Interests

Metaheuristic methods

Hybridization of Metaheuristics with Exact Methods

Evolutionary Computation

Crew Scheduling Problems (in particular, Bus Driver Scheduling Problem)

## Work Experience

Sep – Dec Visiting Scholar, Universidad Autonoma Barcelona, Bellaterra, Spain.

2023

Mar – June Visiting Scholar, University of Melbourne, Melbourne, Australia.

2023

Since 2021 **Project Assistant**, Institute for Logic and Computation, TU Wien, Vienna, Austria.

Funded by FWF project W1260-N35, Vienna Graduate School of Combinatorial Optimization

2017 – 2021 Ambulance rescuer, Humanitas Firenze Nord, Florence (Italy).

2014 – 2019 Academic senator, University of study, Florence (Italy).

2011 - 2021 Maths and Physics's private tutor.

# Residence in Foreign Countries

Madrid, Spain Melbourne, Australia Barcelona, Spain September 2019-February 2020 March 2023-June 2023 September 2023-December 2023

## Publication(s)

- 2024 Tommaso Mannelli Mazzoli, Lucas Kletzander, Nysret Musliu, Kate Smith-Miles, Instance Space Analysis for the Bus Driver Scheduling, on-going.
- 2024 Tommaso Mannelli Mazzoli, Lucas Kletzander, Nysret Musliu, Pascal Van Hentenrick, Investigating Large Neighbourhood Search for Bus Driver Scheduling, ICAPS 2024.
- 2022 Lucas Kletzander, Tommaso Mannelli Mazzoli, Nysret Musliu, Metaheuristic Algorithms for the Bus Driver Scheduling Problem with Complex Break Constraints, Genetic and Evolutionary Computation Conference (GECCO 2022). https://doi.org/10.1145/3512290.3528876.

#### Seminars

I held seminars in the following events.

- May 2024 VGSCO Retreat, From starts in the sky to instances in the space.
- Jan 2024 VGSCO Colloquia, Optimisation and Consensus.
- Oct 2023 UAB Seminar, Solving the bus driver scheduling problem.
- Apr 2023 Optima Seminar, Solving the bus driver scheduling problem.
- Jan 2022 VGSCO Colloquia, Metaheuristic Algorithms for Bus Driver Scheduling Problem with Complex Break Constraints.
- Jun 2022 **DBAI Meeting**, Metaheuristic Algorithms for Bus Driver Scheduling Problem with Complex Break Constraints.
- Jun 2022 VGSCO retreat, Tabu Search for Bus Driver Scheduling Problem with hard Break Constraints.
- Jul 2022 **GECCO 2022**, Metaheuristic Algorithms for Bus Driver Scheduling Problem with Complex Break Constraints.
- Nov 2022 **Open Problems Sessions**, Metaheuristic Algorithms for Bus Driver Scheduling Problem with Complex Break Constraints.

#### Other activities

2022 SIGEVO Summer School (https://gecco-2022.sigevo.org/Summer-School)

### Knowledge

OS GNU Linux, Windows, Android

Languages Python, Octave, Matlab, Fortran, LATEX, C, Julia, R

Software Gams, MiniZinc, SAS, SPSS

#### Outreach

2022 GECCO volunteer

2016 Gara matematica (Mathematics Contest), Dipartimento di Matematica Ulisse Dini, Florence.

Collaboration in proctoring and grading in an annual contest for high school students.

# Languages

Italian Mother Language

English Professional working proficiency

Spanish Professional working proficiency

German Basic

## Other Activities

Hobby Interested in Science and technology in general, chess, salsa, bachata.

Others Italian driving license B, AED operator.

Last Update: 23 May 2024