

# Tommaso Mannelli Mazzoli

## Curriculum Vitae

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📄 [tommanmaz.github.io/](https://github.com/tommanmaz)

### 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 2023 **Visiting Scholar**, *Universidad Autonoma Barcelona*, Bellaterra, Spain.

Mar – June 2023 **Visiting Scholar**, *University of Melbourne*, Melbourne, Australia.

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**.

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## Residence in Foreign Countries

Madrid, Spain

Melbourne, Australia

Barcelona, Spain

September 2019-February 2020

March 2023-June 2023

September 2023-December 2023

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## Publication(s)

- 1 **On Solving the 2-optimality Consensus Finding Problem Using Exact Solvers**, *Tommaso Mannelli Mazzoli, Christian Blum, Pedro Pablo Pinacho Davidson*, on-going, 2024.
- 2 **Instance Space Analysis for the Bus Driver Scheduling**, *Tommaso Mannelli Mazzoli, Lucas Kletzander, Nysret Musliu, Kate Smith-Miles*, International Conference on the Practice and Theory of Automated Timetabling (PATAT), 2024.
- 3 **Investigating Large Neighbourhood Search for Bus Driver Scheduling**, *International Conference on Automated Planning and Scheduling (ICAPS)*, Tommaso Mannelli Mazzoli, Lucas Kletzander, Nysret Musliu, Pascal Van Hentenrick, 2024.  
<https://doi.org/10.1609/icaps.v34i1.31495>
- 4 **Metaheuristic Algorithms for the Bus Driver Scheduling Problem with Complex Break Constraints**, *Lucas Kletzander, Tommaso Mannelli Mazzoli, Nysret Musliu*, Genetic and Evolutionary Computation Conference (GECCO), 2022.  
<https://doi.org/10.1145/3512290.3528876>

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## Seminars

I held seminars in the following events.

- June 2024 **Metaheuristic International Conference 2024**, *Investigating Large Neighbourhood Search for Bus Driver Scheduling*.
- May 2024 **VGSCO Retreat**, *From stars 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 **VGSCO Open Problems Sessions**, *Metaheuristic Algorithms for Bus Driver Scheduling Problem with Complex Break Constraints*.

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## Other activities

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

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## Knowledge

OS GNU Linux, Windows, Android  
Languages Python, Octave, Matlab, Fortran, L<sup>A</sup>T<sub>E</sub>X, C, Julia, R  
Software Gams, MiniZinc, SAS, SPSS

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## 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.

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## Languages

Italian **Mother Language**  
English **Professional working proficiency**  
Spanish **Professional working proficiency**  
German **Basic**

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## Other Activities

Hobby **Interested in Science and technology in general, chess, salsa, bachata.**  
Others **Italian driving license B, AED operator.**

Last Update: 5 June 2024