

# MATTEO CARDELLINI

University of Genova, Italy

matteo.cardellini@edu.unige.it  $\diamond$  me@matteocardellini.it

## JOURNAL PUBLICATIONS

---

- J3 **Optimising Dynamic Traffic Distribution for Urban Networks with Answer Set Programming.** M. Cardellini, C. Dodaro, M. Maratea and M. Vallati - Theory and Practice of Logic Programming, Volume 24, Issue 4, July 2024, pp. 825-843 - Scimago: Q2 on Artificial Intelligence
- J2 **Solving Rehabilitation Scheduling Problems via a Two-Phase ASP approach.** M. Cardellini, P. De Nardi, C. Dodaro, G. Galatà, A. Giardini, M. Maratea, I. Porro. Theory and Practice of Logic Programming, Volume 24, Issue 2, March 2024, pp. 344-367 - Scimago: Q2 on Artificial Intelligence
- J1 **Rescheduling Rehabilitation Sessions with Answer Set Programming.** M. Cardellini, C. Dodaro, G. Galatà, A. Giardini, M. Maratea, N. Nisopoli and I. Porro. Journal of Logic and Computation, Volume 33, Issue 3, April 2023, pp. 837-863 - Scimago: Q2 on Logic

## CONFERENCE PUBLICATIONS

---

- C9 **Temporal Numeric Planning with Patterns.** M. Cardellini and E. Giunchiglia. Proceedings of the 39th Annual AAAI Conference on Artificial Intelligence. AAAI Press, 2025 - GGS: A<sup>++</sup>, CORE: A<sup>++</sup>
- C8 **Taming Discretised PDDL+ through Multiple Discretisations.** M. Cardellini, M. Maratea, F. Percassi, E. Scala and M. Vallati. Proceedings of the 34th International Conference on Automated Planning and Scheduling. AAAI Press, 2024 - GGS: A, CORE: A<sup>++</sup>
- C7 **Symbolic Numeric Planning With Patterns.** M. Cardellini, E. Giunchiglia and M. Maratea. Proceedings of the 38th Annual AAAI Conference on Artificial Intelligence. AAAI Press, 2024 - GGS: A<sup>++</sup>, CORE: A<sup>++</sup>
- C6 **A Framework for Risk-Aware Routing of Connected Autonomous Vehicles via Artificial Intelligence.** M. Cardellini, C. Dodaro, M. Maratea, and M. Vallati. In Proceedings of the 26th IEEE International Conference on Intelligent Transportation Systems. IEEE, 2023 - MA: A<sup>-</sup>
- C5 **A Two-Phase ASP Encoding for Solving Rehabilitation Scheduling.** M. Cardellini, P. De Nardi, C. Dodaro, G. Galatà, A. Giardini, M. Maratea and I. Porro. 2021. In Proceedings of the 5th International Joint Conference, RuleML+RR. Springer, 2021 - CORE: B
- C4 **In-Station Train Movements Prediction: from Shallow to Deep Multi Scale Models.** G. Boleto, L. Oneto, M. Cardellini, M. Maratea, M. Vallati, R. Canepa, D. Anguita. In Proceedings of the 29th European Symposium on Artificial Neural Networks. i6doc, 2021 - GGS: B, CORE: B
- C3 **A Planning-based Approach for In-Station Train Dispatching.** M. Cardellini, M. Maratea, M. Vallati, G. Boleto, and L. Oneto. Proceedings of the 14th Annual Symposium on Combinatorial Search. AAAI Press, 2021 - CORE: B
- C2 **An Efficient Hybrid Planning Framework for In-Station Train Dispatching.** M. Cardellini, M. Maratea, M. Vallati, G. Boleto, and L. Oneto. Proceedings of the 21st International Conference on Computational Science. Springer, 2021 - GGS: B, CORE: A
- C1 **In-Station Train Dispatching: A PDDL+ Planning Approach.** M. Cardellini, M. Maratea, M. Vallati, G. Boleto, and L. Oneto. Proceedings of the 31st International Conference on Automated Planning and Scheduling. AAAI Press, 2021 - GGS: A, CORE: A<sup>++</sup>

## AWARDS

---

- A1 **Award AIxIA Leonardo Lesmo 2022.** Special mention for the best Italian Master's Degree Thesis in Artificial Intelligence

## PROJECTS

---

- P1 Post-graduate scholarship on **Induction and Deduction for Railway Traffic Planning in Small and Medium-sized Stations** - *July 2020 to November 2020* - *5k EUR* - DIBRIS, University of Genova

## INVITED TALKS AND SEMINARS

---

- S4 **University of Genova**. Seminar. *Symbolic Pattern Planning*. January 25, 2024  
S3 **University of Oxford**. Seminar. *Symbolic Pattern Planning*. July 16, 2024  
S2 **Fondazione Bruno Kessler**. Seminar. *Symbolic Pattern Planning*. February 16, 2024  
S1 **University of Huddersfield**. Seminar. *An ASP Framework for Efficient Urban Traffic Optimization*. March 1, 2023

## EXPERIENCES ABROAD

---

- E1 **University of Huddersfield**. *Visiting Researcher - From February to Mid May 2023*. Worked in the group of Prof. Mauro Vallati at the Centre for Planning, Autonomy and Representation of Knowledge (PARK)

## EVENTS

---

PC = PROGRAM COMMITTEE, O = ORGANIZER, R = JOURNAL REVIEWER

- R2 **Journal of Applied Logic 25**. *Guest Reviewer*  
PC4 **ICAPS 23, 24, 25**. *PC Member*. International Conference on Automated Planning and Scheduling  
PC3 **AAAI 23, 24, 25**. *PC Member*. AAAI Conference on Artificial Intelligence  
R1 **Intelligenza Artificiale 24**. *Guest Reviewer*  
PC2 **KEPS 23, 24**. *PC Member*. Workshop on Knowledge Engineering for Planning and Scheduling  
PC1 **ECAI 23**. *PC Member*. European Conference on Artificial Intelligence  
O1 **LPNMR 22**. *Local Organizer*. 18th International Conference on Logic Programming and Non-monotonic Reasoning

## ACADEMIC POSITIONS

---

**Research Fellow (Post-Doc)** *November 2024 - October 2025*  
DIBRIS, University of Genova, Italy

## TEACHING ACTIVITIES

---

TA = TEACHING ASSISTANT, LT = BACHELOR, LM = MASTER, D = PHD

- LM2 **Artificial Intelligence for Robotics II**. LM Robotics Engineering. 20 hours. 5 CFU. University of Genova (DIBRIS) - AY 24/25  
LM1 **Artificial Intelligence**. LM Computer Engineering. 8 hours. 1 CFU. University of Genova (DIBRIS) - AY 24/25  
LT1 **Fondamenti di Informatica**. LT Ingegneria Elettrica and LT Ingegneria Chimica. 70 hours. 7 CFU. University of Genova (DITEN) - AY 24/25  
D1 **AI-Based Planning**. PhD in Security, Risk and Vulnerability. 12 hours. 3 CFU. University of Genova (DIBRIS) - AY 24/25  
TA3 **Fondamenti di Informatica**. Teaching assistant, Prof. E. Giunchiglia. LT ING-INF/05, University of Genova (DIBRIS) - AY 24/25 - First Semester  
TA2 **Fondamenti di Informatica**. Teaching assistant, Prof. E. Giunchiglia. LT ING-INF/05, University of Genova (DIBRIS) - AY 23/24 - First Semester  
TA1 **Databases**. Teaching assistant. Prof. A. Bocalatte, Prof. M. Maratea, LT ING-INF/05, University of Genova (DIBRIS) - AY 22/23 - Second Semester

## SUPERVISOR ACTIVITIES CS = CO-SUPERVISOR

---

- CS2 **A. Formica**. *October 2022*. Master's Degree in Computer Engineering. *In-Station Train Dispatching via Artificial Intelligence Techniques: Optimisation, Rescheduling and Visualisation*. Co-supervisor with Prof. M. Maratea
- CS1 **C. Ansaldo, N. Chiesa**. *July 2022*. Bachelor's Degree in Computer Engineering. *Artificial Intelligence Techniques for Solving the Shift Scheduling Problem*. Co-supervisor with Prof. M. Maratea

## EDUCATION

---

**Italian National Ph.D. in Artificial Intelligence** *November 2021 - October 2024*

Work Faculty: University of Genova, Italy

Administrative Faculty: Polytechnic of Torino, Italy

Supervisors: M. Maratea, E. Giunchiglia, and M. Vallati

Final Grade: PhD obtained Cum Laude on January 9th, 2025

**University of Genova, Italy** *September 2019 - July 2021*

Master's Degree on Computer Engineering

Curriculum in Artificial Intelligence and Human-Centered Computing

Final Grade: 110/110 Cum Laude and 'Dignità di Stampa' obtained July 30th, 2021

**University of Genova, Italy** *September 2016 - September 2019*

Bachelor's degree on Computer Engineering

Final Grade: 110/110 obtained September 30th, 2019

## THESES

---

T3 *Ph.D. Symbolic Pattern Planning* - *M. Cardellini* - Supervisors: E. Giunchiglia, M. Maratea, M. Vallati

T2 *Master's degree. Artificial Intelligence Techniques for Solving the In-Station Train Dispatching Problem* - *M. Cardellini* - Supervisors: M. Maratea

T1 *Bachelor's degree. Visual and Data Analytics for the Analysis of Trains' Flux in a Railway Network* - *G. Boleto, M. Cardellini, G. Martino* - Supervisors: L. Oneto, M. Maratea

## WORK EXPERIENCE

---

**SurgiQ SRL** *April 2021 - November 2021*  
*Researcher* *Genova - IT*

**Secondhand Mobile SRL** *February 2018 - April 2021*  
*CTO e Co-founder* *Genova - IT*