

MATTEO CARDELLINI

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JOURNAL PUBLICATIONS

- J3 **Optimising Dynamic Traffic Distribution for Urban Networks with Answer Set Programming.** M. Cardellini, C. Dodaro, M. Maratea and M. Vallati - To appear in Theory and Practice of Logic Programming - 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 - 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⁺⁺, CORE: A⁺⁺
- 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⁺⁺
- 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⁺⁺, CORE: A⁺⁺
- 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⁻
- C5 **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⁺⁺
- C4 **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
- C3 **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
- C2 **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
- C1 **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

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. Boletto, M. Cardellini, G. Martino - Supervisors: L. Oneto, M. Maratea

ACADEMIC POSITIONS

Research Fellow (Post-Doc)

DIBRIS, University of Genova, Italy

November 2024 - October 2025

EDUCATION

Italian National Ph.D. in Artificial Intelligence

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

November 2021 - October 2024

University of Genova, Italy

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

September 2019 - July 2021

University of Genova, Italy

Bachelor's degree on Computer Engineering

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

September 2016 - September 2019

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

TEACHING ACTIVITIES

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

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

INVITED TALKS AND SEMINARS

- IT4 **University of Genova.** Seminar. *Symbolic Pattern Planning.* January 25, 2024
- IT3 **University of Oxford.** Seminar. *Symbolic Pattern Planning.* July 16, 2024
- IT2 **Fondazione Bruno Kessler.** Seminar. *Symbolic Pattern Planning.* February 16, 2024
- IT1 **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)

SUPERVISOR ACTIVITIES

- S2 **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
- S1 **C. Ansaldi, 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

EVENTS

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

WORK EXPERIENCE

SurgiQ SRL <i>Researcher</i>	April 2021 - November 2021 <i>Genova - IT</i>
Secondhand Mobile SRL <i>CTO e Co-founder</i>	February 2018 - April 2021 <i>Genova - IT</i>