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 - 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 **Initial Condition Retrieving for Hybrid and Numeric Planning Problems**. M. Cardellini, M. Maratea, F. Percassi and M. Vallati. Proceedings of the 35th International Conference on Automated Planning and Scheduling. AAAI Press, 2025 - GGS: A, CORE: A^{++}

C8 **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^{++}

C7 **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^{++}

C6 **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^{++}

C5 **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$^-$

C4 **A Two-Phase ASP Encoding for Solving Rehabilitation Scheduling**. M. Cardellini, P. De Nardi, C. Dodaro, G. Galatá, A. Giardini, M. Maratea and I. Porro. 2021. In Proceedings of the 5th International Joint Conference, RuleML+RR. Springer, 2021 - CORE: B

C3 **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

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^{++}

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)

ACADEMIC POSITIONS

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

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 'Dignitá 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

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. Boccalatte, 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

EVENTS PC = PROGRAM COMMITEE, 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, 25**. *PC Member*. European Conference on Artificial Intelligence

O1 **LPNMR 22**. *Local Organizer*. 18th International Conference on Logic Programming and Non-monotonic Reasoning

WORK EXPERIENCE

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

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