

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. Galatà, 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 (Assegno di Ricerca)** *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 "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. Boletto, M. Cardellini, G. Martino* - Supervisors: L. Oneto, M. Maratea

TEACHING ACTIVITIES

- D1 **AI-Based Planning**. PhD in Security, Risk and Vulnerability. 12 hours. 3 CFU. University of Genova (DIBRIS) - AY 24/25
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
- 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 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, 25**. *PC Member*. European Conference on Artificial Intelligence
- O1 **LPNMR 22**. *Local Organizer*. 18th International Conference on Logic Programming and Non-monotonic Reasoning

ORAL PRESENTATIONS

1. **CILC-21** - Parma, Italy - September 8th 2021.
2. **ICAPS-21** - Virtual - August 11th 2021.
3. **AIxIA-22 Doctoral Consortium** - Udine, Italy - Monday 28th, 2022.
4. **ICLP-22 Doctoral Consortium** - Haifa, Israel - August 2nd, 2022.
5. **IPS@AIxIA-23** - Rome, Italy - November 7th, 2023.
6. **AAAI-24** - Vancouver, Canada - February 24th, 2024.
7. **ICLP-24** - Dallas, Texas, USA - October 15th, 2024.
8. **AAAI-25** - Philadelphia, Pennsylvania, USA - February 28th, 2025.

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>