

✓ riccardo.zamboni@polimi.it
 ♠ ricczamboni.github.io
 ♠ RiccZamboni
 ♠ Scholar

RESEARCH INTERESTS

Outstanding Merits

I am interested in pushing forward the known limits of reinforcement learning. My aim is to advance theoretical understanding that can lead to successful application of reinforcement learning in the real world.

	EDUCATION
2022-2025	Ph.D. in Information Technology, Politecnico di Milano Advisor: Marcello Restelli (marcello.restelli@polimi.it), Industrial Partner: Siemens (AT) Thesis: New Directions in Pre-Training for Reinforcement Learning Industrial Project: Scalable Multi-Agent Reinforcement Learning for Production Scheduling
2017-2019	M.Sc. in Automation and Control Engineering, Politecnico di Milano Advisor: Fabio D'Ercole Thesis: Bio-inspired Learning and Control Grade: 110/110 Cum Laude
2014-2017	B.Sc. in Mechatronics Engineering, University of Trento Advisor: Fabio Bagagiolo Thesis: Optimal Control Theory Grade: 110/110 Cum Laude
	EXPERIENCE F=FALL, W=WINTER, SP=SPRING, S=SUMMER
Sp-S2025	Scientific Collaborator, Inephany <i>Focus</i> : Offline Reinforcement Learning for LLMs' hyperparameter optimization
F2024-Sp2025	Visiting Ph.D. Student , Autonomous Agents Laboratory, University of Edinburgh <i>Advisors</i> : David Abel , Stefano Albrecht <i>Focus</i> : Offline Multi-Agent Reinforcement Learning
W-Sp2022	Research Fellow , RL ³ Laboratory, Politecnico di Milano <i>Advisor</i> : Marcello Restelli <i>Focus</i> : Distributed Reinforcement Learning
2019-2021	Research Engineer , e-Novia <i>Roles</i> : Development of PoCs and MVPs with state-of-the-art Control and Machine Learning algorithms <i>Focus</i> : Dynamic Pricing, AgriTech, Intelligent Control, Embedded Software
2018-2019	Research Fellow , Neuro-Robotics Laboratory, Tohoku University <i>Advisor</i> : Mitsuhiro Hayashibe, Dai Owaki <i>Focus</i> : Motor Control, Neuroscience, Bio-inspired Learning & Control
	_ TEACHING
2023	Machine Learning, M. Sc. in Data Science & AI at Cefriel 30 hrs of tutoring sessions
2022-2023	Informatics , B. Sc. in Computer Science at Politecnico di Milano 26 hrs of exercise sessions
	_ Honors
2020	Roberto Rocca Scholarship , Tenaris S.p.A. Outstanding Merits
2019	MEXT Scholarship, Japanese Government Outstanding Merits
2017	B. Sc. Scholarship, University of Trento

EDITORIAL ACTIVITIES

DEI Chair, European Workshop on Reinforcement Learning EWRL 2022

Reviewer, NeurIPS 2023, 2024

ICML 2023, 2024,2025 (**Outstanding Reviewer**) AISTATS 2025 TMLR 2024

STUDENT CO-SUPERVISION

2025	Davide Tenedini, Ph.D. in Information Technologies, Politecnico di Milano
2025	Carl Richmond, M.Sc. in High Performance Computing Engineering, University of Edinburgh
2024	Luca Maci, M.Sc. in Mathematical Engineering, Politecnico di Milano
2023-2024	Federico Corso, M.Sc. in Automation & Control Engineering, Politecnico di Milano
2023-2024	Enrico Brunetti, M.Sc. in Computer Science, Politecnico di Milano
2023-2024	Duilio Cirino, M.Sc. in Computer Science, Politecnico di Milano
2023	Gianmarco Tedeschi, M.Sc. in Computer Science, Politecnico di Milano
2022-2023	Matteo Nunziante, M.Sc. in Computer Science, Politecnico di Milano

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, W=WORKSHOP

- [C.6] Riccardo Zamboni, Mirco Mutti, Marcello Restelli. Towards Principled Unsupervised Multi-Agent Reinforcement Learning. NeurIPS 2025.
- [W.2] Kale-ab Abebe Tessera, Leonard Hinckeldey, Riccardo Zamboni, David Abel, Amos Storkey. Remembering the Markov Property in Cooperative MARL. RLC 2025 Finding The Frame Workshop.
- [C.5] Vincenzo De Paola, Riccardo Zamboni, Mirco Mutti, Marcello Restelli. Enhancing Diversity in Parallel Agents: A Maximum State Entropy Exploration Story. ICML 2025.
- [W.1] Riccardo Zamboni, Mirco Mutti, Marcello Restelli. Towards Principled Multi-Agent Task Agnostic Exploration. ICML 2025 EXAIT Workshop.
- [C.4] Riccardo Zamboni, Enrico Brunetti, Marcello Restelli. Scalable Multi-Agent Offline Reinforcement Learning and the Role of Information. RLDM 2025.
- [C.3] Riccardo Zamboni, Duilio Cirino, Marcello Restelli, Mirco Mutti. The Limits of Pure Exploration in POMDPs: When the Observation Entropy is Enough. RLC 2024.
- [C.2] Riccardo Zamboni, Duilio Cirino, Marcello Restelli, Mirco Mutti. How to Explore with Belief: State Entropy Maximization in POMDPs. ICML 2024.
- [C.1] Riccardo Zamboni, Alberto Maria Metelli, Marcello Restelli. Distributional Policy Evaluation: a Maximum Entropy approach to Representation Learning. NeurIPS 2023.
- [J.1] Riccardo Zamboni, Dai Owaki, Mitsuhiro Hayashibe. Adaptive and Energy-Efficient Optimal Control in CPGs Through Tegotae-Based Feedback. Frontiers Robotics AI 2021.