Matteo Papini

Assistant Professor

Contact Information

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Highlights

Matteo Papini is an **Assistant Professor** (RTDA) at **Politecnico di Milano**, Milan, Italy, in the Artificial Intelligence and Robotics Lab. His research is directed towards the development of intelligent systems, with a focus on the problem of *sequential decision making under uncertainty*, using the theory and algorithmic solutions of **reinforcement learning** and **contextual bandits**. In 2021 he earned a PhD in Information Technology (cum laude) from Politecnico di Milano, Milan, Italy, under the supervision of Marcello Restelli, with a dissertation on safe policy optimization. In 2020 he worked as a student research intern at Facebook AI Research (now Meta). From 2021 to 2023 he was a postdoctoral researcher in the Artificial Intelligence and Machine Learning Research Group of **Universitat Pompeu Fabra** (UPF), Barcelona, Spain, in Gergely Neu's team.

He has authored 13 peer-reviewed conference papers, including publications at top artificial intelligence and and machine learning conferences such as **NeurIPS (5 papers), ICML (3), AAAI (2) and IJCAI (1)**. Of these, one was awarded an oral presentation at NeurIPS 2018, which was only granted to the top 3% of the accepted papers. Moreover, he has published peer-reviewed manuscripts at renowned peer-reviewed machine learning journals — one on **JMLR** and one on Springer's **Machine Learning**. Among his recurring co-authors are Marcello Restelli (Politecnico di Milano), Matteo Pirotta, Alessandro Lazaric (Meta AI Paris), and Gergely Neu (UPF).

He is a member of *ELLIS* (European Laboratory for Learning and Intelligent Systems). He has worked as a teaching assistant for several classes at Politecnico di Milano and for two international reinforcement learning summer schools. He has served as a reviewer in the program committee of several conferences including NeurIPS, ICML and AAAI. In 2023, with Vincent Adam (UPF), he led the organization of the **Reinforcement Learning Summer School** (RLSS 2023) at UPF.

Faculty and Research Positions

September 2023–present   **Assistant Professor (RTDA)**, *Politecnico di Milano*, Milan, Italy

2021–2023   **Postdoctoral researcher**, *Universitat Pompeu Fabra*, Barcelona

Mar-Apr 2021   **Research Assistant** (Attività di Supporto alla Ricerca), *Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano*, Milan, Italy
Research Topic: Reinforcement Learning Techniques for Developing Artificial Test Drivers on a F1 Simulator, Principal Investigator: Marcello Restelli

Sep-Dec 2020   **Research Intern at Facebook AI Research**, working (remotely) with the Paris FAIR team, under the supervision of Matteo Pirotta. Research topic: representation learning for contextual bandits. The project led to the publication of a paper at ICML 2021 [C3]

Nov 2017–Mar 2021   **Research Assistant** (Assegno di Ricerca), *Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano*, Milan, Italy
Research topic: *Study and Development of Reinforcement Learning Techniques in Industrial Settings*, Principal Investigator: Marcello Restelli.

Education

2017–2021   **Ph.D., Information Technology**, Politecnico di Milano, Milan, Italy
Supervisor: Prof. Marcello Restelli
Dissertation: *Safe Policy Optimization* (`http://hdl.handle.net/10589/170196`)
Awarded cum laude
Date of degree: March 11, 2021

2015–2017   **M.Sc., Computer Science and Engineering**, *Politecnico di Milano, Milan, Italy*
Master Thesis: *Adaptive Batch Size for Safe Policy Gradient Methods*, supervised by Prof. Marcello Restelli
Final mark: 110/110 cum laude
Date of degree: July 27, 2017

2012–2015   **B.Sc., Computer Engineering**, *Politecnico di Milano, Milan, Italy*
Final mark: 110/110 cum laude
Date of degree: July 24, 2015

2007–2012   **High School Diploma**, *Ist. Istr. Sup. P.L. Nervi*, Morbegno (SO), Italy
Final mark: 100/100

Author Profile

Google Scholar   **h-index 12**, `https://scholar.google.it/citations?user=A2WxZlsAAAAJ`

Scopus   `https://www.scopus.com/authid/detail.uri?authorId=57202057824`

dblp   `https://dblp.uni-trier.de/pid/209/4897.html`

Summary of Publications

Journal/Conference	# Papers	Rating	Homepage
Machine Learning	1	Scimago Q1	`https://www.springer.com/journal/10994`
JMLR	1	Scimago Q1	`http://www.jmlr.org/`
NeurIPS	5	CORE A*, GGS A++	`https://nips.cc/`
ICML	3	CORE A*, GGS A++	`https://icml.cc/`
AAAI	2	CORE A*, GGS A++	`https://aaai.org/Conferences/AAAI-23/`
IJCAI	1	CORE A*, GGS A++	`https://www.ijcai.org/`
AISTATS	1	CORE A, GGS A+	`https://aistats.org/`
IJCNN	1	CORE B, GGS A-	`https://2023.ijcnn.org/`
ALT	1	CORE B, GGS B	`http://algorithmiclearningtheory.org/`

Selected Publications

[1] G. Neu, J. Olkhovskaya, **M. Papini**, L. Schwartz: *Lifting the Information Ratio: An Information-Theoretic Analysis of Thompson Sampling for Contextual Bandits.* **NeurIPS** (2022) — **CORE A*, GGS A++**. (authors in alphabetical order)

[2] A. Tirinzoni, **M. Papini**, A. Touati, A. Lazaric, M. Pirotta: *Scalable Representation Learning in Linear Contextual Bandits with Constant Regret Guarantees.* **NeurIPS** (2022) — **CORE A*, GGS A++**

[3] **M. Papini**, M. Pirotta, M. Restelli: *Smoothing policies and safe policy gradients.* Springer's **Machine Learning** (2022) — **Scimago Q1**

[4] **M. Papini**, A. Tirinzoni, A. Pacchiano, M. Restelli, A. Lazaric, M. Pirotta: *Reinforcement learning in linear mdps: Constant regret and representation selection.* **NeurIPS** (2021) — **CORE A*, GGS A++**

[5] **M. Papini**, A. Tirinzoni, M. Restelli, A. Lazaric, M. Pirotta: *Leveraging good representations in linear contextual bandits.* **ICML** (2021) — **CORE A*, GGS A++**

[6] A.M. Metelli, **M. Papini**, P. D'Oro, M. Restelli: *Policy optimization as online learning with mediator feedback.* **AAAI** (2021) — **CORE A*, GGS A++**

[7] A.M. Metelli, **M. Papini**, N. Montali, M. Restelli: *Importance Sampling Techniques for Policy Optimization.* **Journal of Machine Learning Research (JMLR)** 21.141 (2020) — **Scimago Q1**

[8] L. Bisi, L. Sabbioni, E. Vittori, **M. Papini**, M. Restelli: *Risk-averse trust region optimization for reward-volatility reduction.* **IJCAI** (2020) — **CORE A*, GGS A++**

[9] **M. Papini**, A.M. Metelli, L. Lupo, M. Restelli: *Optimistic policy optimization via multiple importance sampling.* **ICML** (2019) — **CORE A*, GGS A++**

[10] A.M. Metelli, **M. Papini**, F. Faccio, M. Restelli: *Policy optimization via importance sampling.* **NeurIPS (oral presentation, top 3%)** (2018) — **CORE A*, GGS A++**

[11] **M. Papini**, D. Binaghi, G. Canonaco, M. Pirotta, M. Restelli: *Stochastic variance-reduced policy gradient.* **ICML** (2018) — **CORE A*, GGS A++**

[12] **M. Papini**, M. Pirotta, M. Restelli: *Adaptive batch size for safe policy gradients.* **NeurIPS** (2017) — **CORE A*, GGS A++**

Awards, Grants, and Recognitions

Nov 16, 2022 **Recipient of Ayudas Juan de la Cierva-Formación 2021**, *research grant for postdoctoral researchers instructed by the Spanish research agency (Agencia Estatal de Investigación), funded by NextGenerationEU*
Role: researcher (Investigador)
Ranked third in national call for the area of Information and Communication Technologies
Total amount granted for 2 years: 64.800€
https://www.aei.gob.es/convocatorias/buscador-convocatorias/ayudas-contratos-juan-cierva-formacion-2021

Feb 2022 **Member of ELLIS** , *https://ellis.eu/*

2021 **Neurips outstanding reviewer award**, *top 8%*

2020 **ICML top reviewer** certificate of appreciation, *top 33%*

2019 **ICML travel award**, *$1300 USD*

2018 **Oral presentation at NeurIPS**, *top 3%*, [C12]

2018 **Neurips travel award**, *$1000 USD*

2018 **ICML travel award**, *$1500 USD*

2017 **Neurips travel award**, *$1200 USD*

Participation in Funded Projects

1 September 2023-present **Research Scientist**, *Artificial Intelligence Foundations for Sequential Decision Making*
Extended Partnership - Future Artificial Intelligence Research (FAIR). National Recovery and Resilience Plan, Mission 4 "Education and research" - Component 2 "From research to business" - Investment 1.3, funded by the European Union - NextGenerationEU
Principal Investigator: Nicola Gatti

2019-2021 **Research Scientist**, *Provably Efficient Algorithms for Large-Scale Reinforcement Learning*
ERC (Grant agreement No. 950180)
Principal Investigator: Gergely Neu

2019-2021 **Research Scientist**, *Reinforcement learning techniques for developing artificial test drivers on a F1 simulator*, Ferrari
Industrial project.
Principal Investigator: Marcello Restelli

2017-2019 **Research Scientist**, *TOTAL EFFICIENCY 4.0, (POR FESR)*
In collaboration with Pirelli Tyre S.p.A.
Principal Investigator: Marcello Restelli

Organization of Scientific Events

2023 **Reinforcement Learning Summer School (RLSS)**, *Universitat Pompeu Fabra, Barcelona, Spain. Role: Main Organizer (co-organized with Vincent Adam)*
https://rlsummerschool.com/

Invited Talks

May 25, 2023	**Invited talk at the Theory of Reinforcement Learning Workshop**, *University of Alberta, Edmonton, Canada*, titled "Offline Primal-Dual Reinforcement Learning for Linear MDPs"
May 11, 2023	**Invited talk at the AI Seminars**, *Politecnico di Milano, Milan, Italy*, titled "Large-Scale Offline Reinforcement Learning"
Sep 16, 2022	**Invited talk at the Reinforcement Learning Conference**, *Technische Universität Dresden, Dresden, Germany*, titled "Lifting the Information Ratio"
Jul 1, 2021	**Invited talk at Mathematical Statistics and Learning**, *Barcelona Graduate School of Economics, Barcelona, Spain*, titled "Leveraging Good Representations in Linear Contextual Bandits and MDPs"
Nov 6, 2020	**Invited talk at Gerhard Neumann's research seminar**, *Karlsruhe Institute of Technology (delivered online)*, titled "Safe Policy Optimization"
Sep 19, 2019	**Invited talk at the Workshop on Markets, Algorithms, Prediction and LEarning (MAPLE)**, *Politecnico di Milano, Milan, Italy*, titled "Optimistic Policy Optimization via Multiple Importance Sampling"

Teaching Experience

2023	**Teaching Assistant**, *Politecnico di Milano, Milan, Italy* Foundations of Artificial Intelligence, resp. Prof. Francesco Amigoni and Pierluca Lanzi, 16 hours, I semester 2023/2024
11-15 Jul 2022	**Teaching Assistant**, *Reinforcement Learning Summer School, Vrije Universitet Amsterdam, Amsterdam, the Netherlands* Role: delivered a tutorial on implementing policy-gradient algorithms with JAX, tutored students in practical sessions.
2022	**Teaching Assistant**, *Politecnico di Milano, Milan, Italy* Intelligenza Artificiale (Artificial Intelligence — online class), resp. Prof. Andrea Bonarini, 6 hours, attività di didattica integrativa, II semester 2021/2022
2021	**Teaching Assistant**, *Politecnico di Milano, Milan, Italy* Intelligenza Artificiale (Artificial Intelligence — online class), resp. Prof. Andrea Bonarini, 6 hours, attività di didattica integrativa, II semester 2020/2021
2020	**Teaching Assistant**, *Politecnico di Milano, Milan, Italy* Intelligenza Artificiale (Artificial Intelligence — online class), resp. Prof. Andrea Bonarini, 6 hours, attività di didattica integrativa, II semester 2019/2020
2019	**Teaching Assistant**, *Politecnico di Milano, Milan, Italy* Informatica B (introductory computer science class), resp. Prof. Luca Cassano, 26 hours, attività di didattica integrativa (esercitatori), I semester 2019/2020
2018	**Teaching Assistant**, *Politecnico di Milano, Milan, Italy* Informatica B (introductory computer science class), resp. Prof. Luca Cassano, 28 hours, attività di didattica integrativa (esercitatori), I semester 2018/2019
1-12 Jul 2019	**Teaching Assistant**, *Reinforcement Learning Summer School, Inria Lille-Nord Europe, Lille, France* Role: tutored students in practical sessions.

2018	**Teaching Assistant**, *Politecnico di Milano (Polo Territoriale di Como), Como, Italy* Web and Internet Economics, resp. Prof. Nicola Gatti, 10 hours, *attività di didattica integrativa (esercitatori), II semester 2017-2018*
2017	**Lab Assistant**, *Politecnico di Milano, Milan, Italy* Informatica B (introductory computer science class), resp. Prof. Luca Cassano, 9 hours, attività di didattica integrativa sperimentale (ex responsabili di laboratorio), I semester 2017-2018
2016	**Lab Tutor**, *Politecnico di Milano, Milan, Italy* Prova Finale–Ingegneria del Software (software engineering: final project), resp. Prof. Carlo Ghezzi, 32 hours, *attività di tutorato (ex tutor di laboratorio), II semester 2015/2016*

Participation on Committees

March 30 2023	**Board member for the Thesis Proposal Defense** of Antoine Moulin and Ludovic Schwartz, *PhD program in Information and Communication Technologies, Universitat Pompeu Fabra, Barcelona, Spain*, board president: G. Neu
2023	**Jury Member for the CLAIRE R2Net 2022 Papers Highlights**
2021, 2022	**Evaluator** for the pre-screening of applicants to the ELLIS PhD program
July 5 2022	**Jury member for the undergraduate thesis defenses** (TFG) of D. Carrascosa and Q. de las Heras, *Universitat Pompeu Fabra, Barcelona, Spain*, Jury president: J. Aguas
March 17 2022	**Board member for the Thesis Proposal Defense** of Nneka Okolo, *PhD program in Information and Communication Technologies, Universitat Pompeu Fabra, Barcelona, Spain*, board president: G. Neu

Editorial Activities

2022-present	Reviewer for Transactions on Machine Learning Research (TMLR)
2023	Reviewer for ICML, COLT
2022	Reviewer for ICML, NeurIPS, EWRL
2021	**Outstanding Reviewer** (top 8%) for NeurIPS, **expert reviewer** for ICML, reviewer for AISTATS, emergency reviewer for AAAI
2020	**Top 33% reviewer** for ICML, reviewer for NeurIPS, AISTATS, AAAI, UAI, ECAI
2019	Reviewer for ICML, NeurIPS, UAI

Attendance to Conferences and Workshops

2023	**EWRL 16**, *Brussels, Belgium*, 2 posters
2023	**AISTATS**, *Valencia, Spain*
2023	**Upper Bound**, *Edmonton, Canada*, invited talk at the RL Theory Workshop
2023	**ALT**, *Singapore*, attended as co-author and served as **session chair**
2022	**NeurIPS**, *New Orleans, USA*, presented 2 posters in poster sessions
2022	**ELLIS ILIR Workshop**, *Feldberg, Germany*
2022	**EWRL 15**, *Milan, Italy*, presented 2 posters in poster sessions
2022	**Reinforcement Learning Conference**, *Dresden, Germany*, invited talk

2022	**ICML**-**2022 Workshop on Complex Feedback in Online Learning**, *Baltimore, USA*, presented 1 poster in poster session
2021	**NeurIPS**, *online edition*, presented 1 poster in online poster session and recorded 1 spotlight talk
2021	**Mathematical Statistics and Learning**, *Barcelona, Spain*, invited talk
2021	**ICML**, *online edition*, presented 1 poster in online poster session and recorded 1 talk
2021	**AAAI**, *online edition*, presented 1 poster in online poster session
2021	**IJCAI**, *online edition*, presented 1 poster in online poster session
2020	**NeurIPS**, *online edition*, attended online
2020	**AISTATS**, *online edition*, recorded 1 talk
2019	**Workshop MAPLE**, *Milan, Italy*, invited talk
2019	**ICML**, *Long Beach, USA*, presented 1 poster and delivered 1 oral presentation
2019	**ICML**, *Long Beach, USA*, presented 1 poster and delivered 1 oral presentation
2018	**NeurIPS**, *Montreal, Canada*, presented 1 poster and delivered 1 oral presentation
2018	**EWRL 14**, *Lille, France*, presented 1 poster
2018	**ICML**, *Stockholm, Sweden*, presented 1 poster and delivered 1 oral presentation
2017	**NeurIPS**, *Long Beach, USA*, presented 1 poster

Attendance to Summer Schools and Exchange Programs

Jul 24–Aug 2 2018	**CIFAR Deep Learning and Reinforcement Learning Summer School**, Toronto, Canada, presented 1 poster
7-14 Oct 2017	**ACAI Summer School on Reinforcement Learning**, Nieuwpoort, Belgium
Autumn 2016	**Erasmus Programme**, KTH Royal Institute of Technology, Stockholm, Sweden

Mentoring

2020	**Co-Supervisor of the Master Thesis** (Correlatore) of Pietro Melzi (now PhD student at Universidad Autónoma de Madrid), *"Deterministic policy optimization: an approach to safe reinforcement learning"*, supervised by M. Restelli, Politecnico di Milano, Milan, Italy
2019	**Co-Supervisor of the Master Thesis** (Correlatore) of Guido Dino Ballabio, *"Cutting back on MDP's features. A theoretically grounded approach to feature selection in reinforcement learning"*, with A.M. Metelli and A. Tirinzoni, supervised by M. Restelli, Politecnico di Milano, Milan, Italy
2019	**Co-Supervisor of the Master Thesis** (Correlatore) of Pierluca D'Oro (now PhD student at MILA), *"Reinforcement learning through adaptive policy spaces"*, with A.M. Metelli and A. Tirinzoni, supervised by M. Restelli, Politecnico di Milano, Milan, Italy

2019 **Co-Supervisor of the Master Thesis** (Correlatore) of Giovanni Pelosi, *"Reinforcement learning through adaptive policy spaces"*, with M. Mutti, supervised by M. Restelli, Politecnico di Milano, Milan, Italy

2019 **Co-Supervisor of the Master Thesis** (Correlatore) of Alessio Mongelluzzo (now Senior Research Engineer at Nuance Communications), *"A data-driven approach to detect faults in the tire building process"*, with F. Trovò, supervised by M. Restelli, Politecnico di Milano, Milan, Italy

2019 **Co-Supervisor of the Master Thesis** (Correlatore) of Lorenzo Lupo (now PhD student at Université Grenoble Alpes), *"Exploration in policy search via multiple importance sampling"*, with A.M. Metelli, supervised by M. Restelli, Politecnico di Milano, Milan, Italy

2018 **Co-Supervisor of the Master Thesis** (Correlatore) of Francesco Faccio (now PhD student at IDSIA), *"A study of importance sampling techniques for policy optimization"*, with A.M. Metelli and J. Schmidhuber, supervised by M. Restelli, Politecnico di Milano, Milan, Italy

2018 **Co-Supervisor of the Master Thesis** (Correlatore) of Andrea Battistello, *"Balancing safety and exploration in policy gradient"*, supervised by M. Restelli, Politecnico di Milano, Milan, Italy

2018 **Co-Supervisor of the Master Thesis** (Correlatore) of Giuseppe Canonaco (PhD from Politecnico di Milano) and Damiano Binaghi (now Computer Vision and Deep Learning Engineer at Artificialy), *"Stochastic variance reduced policy gradient"*, with M. Pirotta, supervised by M. Restelli, Politecnico di Milano, Milan, Italy

Complete List of Papers

Journal Papers

[J1] M. Papini, M. Pirotta, and M. Restelli. Smoothing policies and safe policy gradients. Machine Learning, 2022, 1-57 (`https://rdcu.be/c0a7S`)

[J2] A. M. Metelli, M. Papini, N. Montali, M. Restelli. Importance Sampling Techniques for Policy Optimization. J. Mach. Learn. Res. 21.141., pp. 1-75, 2020

Conference Papers

[C1] A. Tirinzoni, M. Papini, A. Touati, A. Lazaric, and M. Pirotta. Scalable representation learning in linear contextual bandits with constant regret guarantees. In *NeurIPS*, 2022 (to appear in proceedings).

[C2] G. Neu, J. Olkhovskaya, M. Papini, and L. Schwartz. Lifting the information ratio: An information-theoretic analysis of thompson sampling for contextual bandits. In *NeurIPS*, 2022 (to appear in proceedings).

[C3] G. Gabbianelli, G. Neu, and M. Papini. Online learning with off-policy feedback. In *ALT*, volume 201 of *Proceedings of Machine Learning Research*, pages 620–641. PMLR, 2023.

[C4] M. Papini, A. Tirinzoni, M. Restelli, A. Lazaric, and M. Pirotta. Leveraging good representations in linear contextual bandits. In *ICML*, volume 139 of *Proceedings of Machine Learning Research*, pages 8371–8380. PMLR, 2021.

[C5] M. Papini, A. Tirinzoni, A. Pacchiano, M. Restelli, A. Lazaric, and M. Pirotta. Reinforcement learning in linear mdps: Constant regret and representation selection. In *NeurIPS*, pages 16371–16383, 2021.

[C6] A. M. Metelli, M. Papini, P. D'Oro, and M. Restelli. Policy optimization as online learning with mediator feedback. In *AAAI*, pages 8958–8966. AAAI Press, 2021.

[C7] M. Papini, A. Battistello, and M. Restelli. Balancing learning speed and stability in policy gradient via adaptive exploration. In *AISTATS*, volume 108 of *Proceedings of Machine Learning Research*, pages 1188–1199. PMLR, 2020.

[C8] P. D'Oro, A. M. Metelli, A. Tirinzoni, M. Papini, and M. Restelli. Gradient-aware model-based policy search. In *AAAI*, pages 3801–3808. AAAI Press, 2020.

[C9] L. Bisi, L. Sabbioni, E. Vittori, M. Papini, and M. Restelli. Risk-averse trust region optimization for reward-volatility reduction. In *IJCAI*, pages 4583–4589. ijcai.org, 2020.

[C10] M. Papini, A. M. Metelli, L. Lupo, and M. Restelli. Optimistic policy optimization via multiple importance sampling. In *ICML*, volume 97 of *Proceedings of Machine Learning Research*, pages 4989–4999. PMLR, 2019.

[C11] M. Beraha, A. M. Metelli, M. Papini, A. Tirinzoni, and M. Restelli. Feature selection via mutual information: New theoretical insights. In *IJCNN*, pages 1–9. IEEE, 2019.

[C12] M. Papini, D. Binaghi, G. Canonaco, M. Pirotta, and M. Restelli. Stochastic variance-reduced policy gradient. In *ICML*, volume 80 of *Proceedings of Machine Learning Research*, pages 4023–4032. PMLR, 2018.

[C13] A. M. Metelli, M. Papini, F. Faccio, and M. Restelli. Policy optimization via importance sampling. In *NeurIPS*, pages 5447–5459, 2018.

[C14] M. Papini, M. Pirotta, and M. Restelli. Adaptive batch size for safe policy gradients. In *NeurIPS*, pages 3591–3600, 2017.

Workshop Papers

[W8] F. Bacchiocchi, F. E. Stradi, M. Papini, A. M. Metelli, N. Gatti. Online Adversarial MDPs with Off-Policy Feedback and Known Transitions. 16th European Workshop on Reinforcement Learning, Brussels, Belgium, 2023

[W7] G. Gabbianelli, G. Neu, N. Okolo, M. Papini. Offline Primal-Dual Reinforcement Learning for Linear MDPs. 16th European Workshop on Reinforcement Learning, Brussels, Belgium, 2023

[W1] G. Neu, J. Olkhovskaya, M. Papini and L. Schwartz. Lifting the Information Ratio: An Information-Theoretic Analysis of Thompson Sampling for Contextual Bandits. 15th European Workshop on Reinforcement Learning, Milan, Italy, 2022

[W2] A. Tirinzoni, M. Papini, A. Touati, A. Lazaric, and M. Pirotta. Scalable Representation Learning in Linear Contextual Bandits with Constant Regret Guarantees. 15th European Workshop on Reinforcement Learning, Milan, Italy, 2022

[W3]   G. Gabbianelli, M. Papini, G. Neu. Online Learning with Off-Policy Feedback. ICML-2022 workshop on Complex Feedback in Online Learning, Baltimore, USA, 2022

[W4]   A. Gianola, M. Montali, and M. Papini. Automated Reasoning for Reinforcement Learning Agents in Structured Environments. OVERLAY workshop on fOrmal VERification, Logic, Automata and sYnthesis, Padova, Italy, 2021

[W2]   M. Papini, A. Tirinzoni, A. Pacchiano, M. Restelli, A. Lazaric, and M. Pirotta. Reinforcement Learning in Linear MDPs: Constant Regret and Representation Selection. ICML Workshop on Reinforcement Learning Theory, virtual, 2021

[W5]   M. Papini, A. Battistello, and M. Restelli. Safe Exploration in Gaussian Policy Gradient. NeurIPS-2019 Workshop on Safety and Robustness in Decision Making, Vancouver, Canada, 2019

[W6]   M. Papini, A. Battistello, and M. Restelli. Safely Exploring Policy Gradient. 14th European Workshop on Reinforcement Learning, Lille, France, 2018

Languages

Italian, *native speaker*

English, *fluent (Cambridge FCE, Grade A — C1 CEFR level)*

Spanish, *intermediate (completed course of level B1 at UPF)*

Programming Languages

Python (several research projects) including experience with deep learning libraries **TensorFlow** and **PyTorch**, **LaTeX** (typesetting of several manuscripts), **C++** (one research project, one project as master student), **C, MATLAB** (taught as TA), **Java** (final project of B.Sc.).

Hobbies

Climbing, piano.