

# Francesco Morri

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## Current Position

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<b>University of Lille- INRIA Lille</b> <ul style="list-style-type: none"><li>• PhD student, thesis subject: <i>Game-Theoretic Learning in Intelligent Marketplaces</i></li></ul>	Oct 2022 - ongoing
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## Education

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<b>Sorbonne Université</b> <ul style="list-style-type: none"><li>• M2 in Physics of Complex Systems (i-PCS)</li><li>• <b>Final Grade:</b> 16/20 (très bien)</li></ul>	Sep 2021 – Jul 2022
<b>Abdus Salam International Centre for Theoretical Physics (ICTP)</b> <ul style="list-style-type: none"><li>• Spring College in the Physics of Complex Systems</li></ul>	Feb 2022 – Mar 2022
<b>Politecnico di Torino</b> <ul style="list-style-type: none"><li>• MSc in Physics of Complex Systems (International Track)</li><li>• <b>Final Grade:</b> 110/110 cum laude</li></ul>	Sep 2020 – Oct 2022
<b>Università di Bologna</b> <ul style="list-style-type: none"><li>• BSc in Physics</li><li>• <b>Final Grade:</b> 110/110</li></ul>	Oct 2017 – Sep 2020

## Experience

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<b>Visiting Student</b> , Universidad de O'Higgins, Rancagua, Chile <b>Supervisor:</b> David Salas I worked on non-cooperative games and conjectural games.	May 2025
<b>Visiting Student</b> , Polytechnique Montréal, Montréal, Canada <b>Supervisors:</b> Quentin Cappart, Hanane Dagdougui I worked on machine learning to enhance optimization algorithms.	Jul 2024 - Sep 2024
<b>Visiting Student</b> , Polytechnique Montréal, Montréal, Canada <b>Supervisor:</b> Quentin Cappart I worked with Quentin Cappart on optimization algorithms for smart building, focusing on the NeurIPS Citylearn Challenge 2023 (which we won). The visit was part of the Galangal project, a collaboration of researchers from Lille, Montréal and Edinburgh.	Nov 2023
<b>Research Intern</b> , Institut de Physique Théorique (IPHT), Saclay, France <b>Supervisor:</b> Pierfrancesco Urbani I studied simple algorithms to solve continuous constraints satisfaction problems close to their satisfiability transition, using statistical mechanics and spin glasses theory.	Mar 2022 - Jul 2022
<b>Visiting Student</b> , SISSA & ICTP, Trieste, Italy I attended courses with PhD students of both SISSA and ICTP as part of my first semester in the Master in Physics of Complex Systems (International Track)	Sep 2020 - Jan 2021

## Publications

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<b>Winning the 2023 CityLearn Challenge: A Community-Based Hierarchical Energy Systems Coordination Algorithm</b> <b>Authors:</b> A. I. Garmendia, F. Morri, Q. Cappart, H. Le Cadre 27th European Conference on Artificial Intelligence (ECAI)	2024
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<b>Learning in Stackelberg Games with Application to Strategic Bidding in the Electricity Market</b>	2024
<i>Authors:</i> F. Morri, H. Le Cadre, P. Gruet, L. Brotcorne	
20th International Conference on the European Energy Market (EEM)	
<b>On the Thermodynamic Interpretation of Deep Learning System</b>	2021
<i>Authors:</i> R. Fioresi, F. Faglioni, F. Morri, L. Squadrani	
Geometric Science of Information. GSI 2021. Lecture Notes in Computer Science, vol 12829. Springer	

## Pre-prints

<b>Nonconvex Game and Multi Agent Reinforcement Learning for Zonal Ancillary Markets</b>	2025
<i>Authors:</i> F. Morri, H. Le Cadre, P. Gruet, L. Brotcorne	
Submitted to <i>Transactions on Energy Markets, Policy and Regulation</i> in October 2025	
<b>Learning in Conjectural Stackelberg Games</b>	2025
<i>Authors:</i> F. Morri, H. Le Cadre, L. Brotcorne	
Presented at <i>Games, Agents, and Incentives Workshop</i> at AAMAS 2025	

## Talks and Presentations

<b>GAIW:</b> Learning in Conjectural Stackelberg Games - <i>F. Morri, H. Le Cadre, L. Brotcorne</i>	2025 - Detroit, USA
7th Games, Agents, and Incentives Workshop	
<b>ROADEF:</b> Learning in Conjectural Stackelberg Games - <i>F. Morri, H. Le Cadre, L. Brotcorne</i>	2025 - Paris, France
26ème Congrès Annuel de la Société Française de Recherche Opérationnelle et d'Aide à la Décision	
<b>ISMP:</b> Learning in Multi-Leader Single-Follower Stackelberg Games - <i>F. Morri, H. Le Cadre, L. Brotcorne</i>	2025 - Montréal, Canada
25th International Symposium on Mathematical Programming	
<b>IMACS:</b> Multi-Agent Reinforcement Learning for Strategic Bidding in the Electricity Market - <i>F. Morri, H. Le Cadre, P. Gruet, L. Brotcorne</i>	2023 - Roma, Italy
21st International Association for Mathematics and Computers in Simulation World Congress	
<b>Fime Summer School on Big Data &amp; Finance:</b> Multi-Agent Reinforcement Learning for Strategic Bidding in Two Stage Electricity Markets - <i>F. Morri, H. Le Cadre, P. Gruet, L. Brotcorne</i>	2023 - Aussois, France
<b>LION17:</b> Multi-Agent Reinforcement Learning for Strategic Bidding in Two Stage Electricity Markets - <i>F. Morri, H. Le Cadre, P. Gruet, L. Brotcorne</i>	2023 - Nice, France
17th Learning and Intelligent Optimization Conference	

## Teaching

<b>Object Oriented Programming,</b> <i>École Centrale de Lille, G1/G2</i>	2025
The goal of this course is to introduce the basic concepts of object oriented programming with Java. It is organized in 40h of lab sessions, where the students have to develop small projects following the teacher's instructions.	
<b>Contribution:</b> I followed a class of 16 students, teaching the basics of the Java language and helping with coding exercise. I then participated in the oral exam at the end of the course.	

## Reviewing

Reviewer for AAAI26	2025
Reviewer for LION 2025	2025

## Technical Skills

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### Coding:

- **Experienced:** C++ (ROOT, GSL), Python (PyTorch, Numpy, Pandas, Matplotlib)
- **Familiar:** JavaScript
- **Basics:** Java, HTML, CSS

### Languages:

- **Native:** Italian
- **Fluent:** English
- **Intermediate:** French