

Giulia Romano

Ph.D. Candidate in Artificial Intelligence

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in [giuro](#)

Research Interests

Online Learning, Multi-Armed Bandits, Algorithmic Game Theory, Mechanism Design

Experience

Oct2022-
Jan2023 **Researcher at Criteo AI Lab.**

Nov2019-
present **Ph.D. in Artificial Intelligence at Politecnico di Milano.**
Topics: online learning for digital markets, mechanism design. **Advisor:** prof. Nicola Gatti

May2019 - **Industrial Research Collaboration – AdsHotel.**
May2021 **Project:** automated tool for bid/budget optimization

Jan2019 - **Industrial Research Collaboration – DoveVivo.**
Jul2021 **Project:** automated pricing tool for room rental

Jan2019-
Oct2019 **Research Assistant at Politecnico di Milano.**

Education

Nov2019-
present **Ph.D. in Artificial Intelligence at Politecnico di Milano.**
Advisor: prof. Nicola Gatti

Dec2018 **Mathematical Engineering MSc - Applied Statistics.**
Politecnico di Milano, Italy. **Minor:** Decision-making models and methods

Feb2016 **Mathematical Engineering BSc.**
Politecnico di Milano, Italy

Publications

Conference Papers

- Algorithmic Advertising in the Metaverse: Finding Effective Ads Allocations, *Castiglioni M., Marchesi A., Romano G., Gatti N., C. Palayamkottai, under review, 2022*
- Incentivizing the Contribution of Selfish Agents in Crowd Tasks: Revenue Maximization with Direct and Indirect Mechanisms, *Montazeri M., Castiglioni M., Romano G., Gatti N., Kebriaei H., under review, 2022*
- A Unifying Framework for Online Optimization with Long-Term Constraints, *Castiglioni M., Celli A., Marchesi A., Romano G., Gatti N., **NeurIPS-2022***
- The Power of Media Agencies in Ad Auctions: Improving Utility through Coordinated Bidding, *Romano G., Castiglioni M., Marchesi A., Gatti N., **IJCAI-2022***
- Public Signaling in Bayesian Ad Auctions, *Bacchiocchi F., Castiglioni M., Marchesi A., Romano G., Gatti N., **IJCAI-2022***
- Multi-Armed Bandit Problem with Temporally-Partitioned Rewards: When Partial Feedback Counts, *Romano G., Agostini A., Trovò F., Gatti N., Restelli M., **IJCAI-2022***
- Efficiency of Ad Auctions with Price Displaying, *Castiglioni M., Ferraioli D., Gatti N., Marchesi A., Romano G., **AAAI-2022***

- Signaling in Posted Price Auctions,
Castiglioni M., Romano G., Marchesi A., Gatti N., AAAI-2022
- Online Posted Pricing with Unknown Time-Discounted Valuations,
Romano G., Tartaglia G., Marchesi A., Gatti N., AAAI-2021
- Personality-Based Representations of Imperfect-Recall Games,
Celli A., Romano G., Gatti N., AAMAS-2019, extended-abstract

Journal Papers

- Increasing Revenue in Bayesian Posted Price Auctions through Signaling,
Castiglioni M., Romano G., Marchesi A., Gatti N., under review, 2022
- Safe Online Bid Optimization with Return-On-Investment and Budget Constraints subject to Uncertainty,
Castiglioni M., Nuara A., Romano G., Spadaro G., Trovò F., Gatti N., under review, 2022

Workshop Papers

- A Unifying Framework for Online Safe Optimization,
Castiglioni M., Celli A., Marchesi A., Romano G., Gatti N., NeurIPS 2022, Workshop on Machine Learning Safety
- Multi-Armed Bandit Problem with Temporally-Partitioned Rewards,
Romano G., Agostini A., Trovò F., Gatti N., Restelli M., NeurIPS 2022, Women in Machine Learning Workshop
- Safe Online Bid Optimization with Uncertain ROI and Budget Constraints,
Castiglioni M., Nuara A., Romano G., Spadaro G., Trovò F., Gatti N., AAMAS 2022, Learning with Strategic Agents Workshop
- Signaling in Bayesian Posted Price Auctions,
Castiglioni M., Romano G., Marchesi A., Gatti N., AAMAS 2022, Learning with Strategic Agents Workshop
- Equilibrium Analysis of Ad Auctions with Price Displaying,
Castiglioni M., Ferraioli D., Gatti N., Marchesi A., Romano G., AAMAS 2022, Learning with Strategic Agents Workshop
- Ottimizzazione di Campagne Pubblicitarie per Prenotazioni di Hotel con Algoritmi di Intelligenza Artificiale
Alessandrelli L., Trovò F., Romano G., Gatti N., Ital-IA-2022 (In Italian)
- Safe Online Bid Optimization with Uncertain Return-On-Investment and Budget Constraints
Castiglioni M., Nuara A., Romano G., Spadaro G., Trovò F., Gatti N., NeurIPS 2021 Workshop on Machine Learning meets Econometrics (MLECON)
- SHARP: Pricing Automatico dell'affitto di Stanze,
Nuara A., Romano G., Trovò F., Gatti N., Restelli M., Ital-IA-2019 (In Italian)

Honors and Awards

- 2021 Outstanding Poster Award,
At Mediterranean Machine Learning summer school

Teaching

- 2019-2022 **Teaching Assistant**, *Sistemi Informatici (Real-Time Computing Systems)*.
Politecnico di Milano, Italy

Talks

- 2022 The Power of Media Agencies in Ad Auctions: Improving Utility through Coordinated Bidding, *At IJCAI-22, oral and poster presentation*
- 2022 Multi-Armed Bandit Problem with Temporally-Partitioned Rewards: When Partial Feedback Counts, *At IJCAI-22, oral and poster presentation*
- 2022 Public Signaling in Bayesian Ad Auctions, *At IJCAI-22, oral and poster presentation*
- 2022 Efficiency of Ad Auctions with Price Displaying, *At AAAI-22, oral and poster presentation*
- 2022 Signaling in Posted Price Auctions, *At AAAI-22, oral and poster presentation*
- 2022 Ottimizzazione di Campagne Pubblicitarie per Prenotazioni di Hotel con Algoritmi di Intelligenza Artificiale, *At Ital-IA 2022, talk*
- 2021 Online Posted Pricing with Unknown Time-Discounted Valuations, *At AAAI-21, oral and poster presentation*
- 2021 Safe Online Bid Optimization with Return-on-investment Constraints, *At Mediterranean Machine Learning summer school, poster presentation*
- 2020 Online Posted Pricing with Unknown Time-Discounted Valuations, *At ALGADIMAR annual meeting (Algorithms, Games, and Digital Markets), talk*

■ Programming and Frameworks

Programming languages: Python, R, SQL, Matlab.

Optimization Frameworks: AMPL, Gurobi.

■ Languages

Italian **Native language.**

English **Fluent.**

French **Good.**