Andrea Celli

andreacelli@fb.com • https://andcelli.github.io/ • andcelli

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Research interests

Fields: Artificial intelligence, game theory.

Specific: Equilibrium computation, imperfect-information games, learning in games.

Employment

Postdoctoral researcher
Facebook CDS — *June 2020–Present*

Postdoctoral researcher
Politecnico di Milano — *November 2019–May 2020*

Education

Politecnico di Milano — **Milan**
PhD in Computer Science — *2016–February 2020*

Carnegie Mellon University — **Pittsburgh**
Visiting Scholar, PA, USA — *Jan 2018–May 2018*

Politecnico di Milano — **Milan**
MSc in Computer Science and Engineering, Grade: 110 cum laude/110 — *2014–2016*

Politecnico di Milano — **Milan**
BSc in Computer Science and Engineering, Grade: 110 cum laude/110 — *2011–2014*

Research Experience

- Carnegie Mellon University, with Prof. Tuomas Sandholm — Jan 2018–May 2018
  - Equilibrium computation and optimization
- Politecnico di Milano, with Prof. Nicola Gatti — 2016–present
  - Equilibrium computation, optimization, learning in games

Publications

Conference Papers

[C1] **A. Celli**, S. Coniglio, N. Gatti, "Bayesian persuasion with sequential games," in *AAAI*, 2020.

[C2] M. Castiglioni, **A. Celli**, N. Gatti, "Persuading voters: It's easy to whisper, it's hard to speak loud," in *AAAI*, 2020.

[C3] **A. Celli**, A. Marchesi, T. Bianchi, N. Gatti, "Learning to correlate in multi-player general-sum sequential games," in *NeurIPS*, 2019.

[C4] **A. Celli**, S. Coniglio, N. Gatti, "Computing optimal ex ante correlated equilibria in two-player sequential games," in *AAMAS*, 2019.

[C5] **A. Celli**, G. Romano, N. Gatti, "Personality-based representations of imperfect-recall games," in *AAMAS (Extended Abstract)*, 2019.

[C6] G. Farina, **A. Celli**, N. Gatti, T. Sandholm, "Ex ante coordination and collusion in zero-sum multi-player extensive-form games," in *NeurIPS*, 2018.

[C7] **A. Celli** and N. Gatti, "Computational results for extensive-form adversarial team games," in *AAAI*, 2018.

[C8] **A. Celli**, A. Marchesi, N. Gatti, "On the complexity of nash equilibrium reoptimization," in *UAI*, 2017.

[C9] N. Basilico, **A. Celli**, G. De Nittis, N. Gatti, "Team-maxmin equilibrium: Efficiency bounds and algorithms," in *AAAI*, 2017.

[C10] N. Basilico, **A. Celli**, G. D. Nittis, N. Gatti, "Coordinating multiple defensive resources in patrolling games with alarm systems," in *AAMAS*, 2017.

Journal Papers

[J1] **A. Celli** and A. Marchesi, "Learning dynamics in limited-control repeated games," *Intelligenza Artificiale*, 2018.

[J2] N. Basilico, **A. Celli**, G. D. Nittis, N. Gatti, "Computing the team–maxmin equilibrium in single–team single–adversary team games," *Intelligenza Artificiale*, 2017.

Workshop Papers

[W1] G. Farina, **A. Celli**, N. Gatti, T. Sandholm, "Ex ante coordination in team games," in *AAAI, Workshop on Reinforcement Learning in Games*, 2018.

[W2] **A. Celli** and A. Marchesi, "Nash equilibrium reoptimization is hard," in *IJCAI, Algorithmic Game Theory Workshop*, 2017.

Teaching

- Race Strategies Computation, Ferrari S.p.A. 2019
- Game Theory, Politecnico di Milano, TA 2019–2020
- Informatica A, Politecnico di Milano, TA 2019–2020
- Economics and Computation, Politecnico di Milano, TA 2018–2019
- Informatica A, Politecnico di Milano, TA 2018–2019
- Economics and Computation, Politecnico di Milano, TA 2017–2018

Honors and Awards

- Lesmo Award for the best Italian MSc Thesis in Artificial Intelligence 2017
- National Doctoral Scholarship 2016–2019
  Sponsored by the Ministry of Education, Universities and Research
- Recommender Systems Challenge, Politecnico di Milano 2015
  Final placement: 3rd/47

Talks

Invited Talks

- Bayesian Persuasion in Voting Scenarios 2019
  At MAPLE'19 (Markets, Algorithms, Prediction and Learning) in Milan
- Adversarial Team Games 2017
  At the International Conference of the Italian Association for Artificial Intelligence

Seminars

- Bayesian Persuasion 2017
  At Politecnico di Milano, Permanent Itinerant Game Theory Seminars (P.I.G.S.)
- Adversarial Team Games 2017
  At University of Milan-Bicocca, Permanent Itinerant Game Theory Seminars (P.I.G.S.)

Service

- Program committee: AAAI '18,'19,'20, ECAI '20, IJCAI '20. Reviewing: AAMAS 2017, IJCAI 2017, IJCAI 2019

Programming and Frameworks

- Programming languages: Python, RUST, Java, C, R, Julia
- Optimization frameworks: AMPL
- Solvers: CPLEX, Gurobi, BARON

Languages

- Italian: mother tongue
- English: proficient user
  - IELTS Academic, Overall band score 8 (level C2) 2013