Andreas Maggiori

Contact Information

EMAIL: am6292@columbia.edu
LINKS:

Professional Experience

10/2023-Present	**Postdoctoral Research Scientist, Columbia University** Mentors: Eric Balkanski and Will Ma
05/2022-08/2022	**Research Intern, Google Zurich** Hosted by Ehsan Kazemi, I worked on abuse video detection using deep learning and clustering techniques.
07/2021-10/2021	**Research Intern, Google Zurich** Hosted by Nikos Parotsidis, I worked on improving the performance of distributed clustering algorithms. Part of this work was published at ICML 2022.

Education

09/2018-09/2023	**École Polytechnique Fédérale de Lausanne (EPFL), Switzerland** PhD in Computer Science Thesis: *Beyond worst-case analysis, with or without predictions* Advisors: Rüdiger Urbanke and Ola Svensson
09/2011-10/2017	**National Technical University of Athens, Greece** Diploma (5-year joint degree), Electrical and Computer Engineering (ECE) Grade: 9.12 / 10 (approx. best 3%) Thesis: Using Machine Learning Techniques to Infer Players' Valuations in Online Ad Auctions Advisor: Dimitris Fotakis

Long term Research Visits

09/2022-11/2022	**Simons Institute for the Theory of Computing , UC Berkeley** **Visiting graduate student** for the program Data-Driven Decision Processes

Research Interests

I am broadly interested in data-driven decision-making under uncertainty and its societal implications. My work combines techniques from combinatorial optimization and machine learning with the ultimate goal of designing algorithms that outperform classical algorithms when accurate predictions about the future are available while maintaining robustness against adversarial and/or biased predictions.

Publications

Authors are in alphabetical order.

1. **Fair Secretaries with Unfair Predictions**
   NeurIPS 2024 (to appear)
   E. Balkanski, W. Ma, A. Maggiori
2. Dynamic Correlation Clustering in Sublinear Update Time
   ICML 2024 - Spotlight Presentation (3% acceptance rate)
   V. Cohen-Addad, S. Lattanzi, A. Maggiori, N. Parotsidis
3. Online and Consistent Correlation Clustering
   ICML 2022
   V. Cohen-Addad, S. Lattanzi, A. Maggiori, N. Parotsidis
4. An Improved Analysis of Greedy for Online Steiner Forest
   SODA 2022
   É. Bamas, M. Drygala, A. Maggiori
5. The Primal-Dual method for Learning Augmented Algorithms
   NeurIPS 2020-Oral Talk (1% acceptance rate)
   É. Bamas, A. Maggiori, O. Svensson
6. Learning Augmented Energy Minimization via Speed Scaling
   NeurIPS 2020-Spotlight Presentation (3% acceptance rate)
   É. Bamas, A. Maggiori, L. Rohwedder, O. Svensson
7. Online Matching with General Arrivals
   FOCS 2019
   B. Gamlath, M. Kapralov, A. Maggiori, O. Svensson, D. Wajc

Work in progress

Authors are in alphabetical order.

1. **Fair Secretaries with Unfair Predictions**
   Job market paper – preliminary version accepted at NeurIPS 2024
   E. Balkanski, W. Ma, A. Maggiori
2. The Primal-Dual method for Learning Augmented Algorithms
   Preliminary version accepted as an **oral talk** at NeurIPS 2020
   É. Bamas, A. Maggiori, O. Svensson
3. Fair and Consistent Correlation Clustering
   Submitted
   E. Balkanski, I. Chatzitheodorou, A. Maggiori
4. Data-Driven Solution Portfolios
   Submitted
   M. Drygala, S. Lattanzi, A. Maggiori, M. Stouras, O. Svensson, S. Vassilvitskii

Invited Talks

* Scheduled

- Fair Secretaries with Unfair Predictions

  *11/2024** **Drexel University**, USA
  *11/2024** **University of Massachusetts, Amherst (UMass)**, USA
  *10/2024** **Yale SOM Operations Seminar, Yale University**, USA
  09/2024 **Rutgers/DIMACS Theory of Computing Seminar, Rutgers University**, USA
  07/2024 **INFORMS Revenue Management and Pricing Section Conference, UCLA**, USA
  07/2024 **Workshop on Algorithms with Predictions, Columbia University**, USA
  06/2024 **INFORMS Workshop on Market Design, Yale University**, USA

- Data-Driven Solution Portfolios

  10/2024 **NYU Theory Seminar, New York University**, USA

- Online and Consistent Correlation Clustering

06/2023 **INFORMS Applied Probability Society Conference, Nancy**, France
09/2022 **University of Massachusetts, Amherst (UMass)**, USA

- The Primal-Dual method for Learning Augmented Algorithms

09/2022 **Simons Institute for the Theory of Computing, UC Berkeley**, USA
09/2022 **University of Massachusetts, Amherst (UMass)**, USA
06/2021 **Google Zurich**, Switzerland

Awards

2023-2025: DSI fellowship of Columbia University
2023-2025: SNSF PostDoc Mobility fellowship (declined due to conflict with DSI fellowship)
2018-2019: EDIC fellowship of EPFL
2017: 1st in the NTUA hub at the Google Hashcode programming competition (170 in the world) with the team *Veni Vidi Vsync*
2013: Bronze medal at SEEMOUS (South Eastern European Mathematical Olympiad for University Students) competition [results]
2010: Bronze medal in the Euclid phase of high school mathematics competition organized by the Hellenic Mathematical Society
2008, 2010: Twice finalist in the Archimedes high school mathematics competition organized by the Hellenic Mathematical Society

Languages

Greek *(Native)*, Italian *(Native)*, English (*C2*), French (*C2*), Spanish (*B2*)