

# Andreas MAGGIORI

## CONTACT INFORMATION

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## PROFESSIONAL EXPERIENCE

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|-------------------|---|
| 10/2023 - Present | <b>Postdoctoral Research Scientist, Columbia University</b><br>Mentors: <a href="#">Will Ma</a> and <a href="#">Eric Balkanski</a>  |
| 05/2022-08/2022   | <b>Research Intern, Google Zurich</b><br>Hosted by <a href="#">Ehsan Kazemi</a> , I worked on efficient active learning for graphs.   |
| 07/2021-10/2021   | <b>Research Intern, Google Zurich</b><br>Hosted by <a href="#">Nikos Parotsidis</a> , I worked on improving the performance of clustering algorithms. My work led to an <a href="#">ICML 2022 publication</a> . |

## EDUCATION

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|-----------------|---|
| 09/2018-09/2023 | <b>École Polytechnique Fédérale de Lausanne (EPFL), Switzerland</b><br>PhD in Computer Science<br>Thesis: Beyond worst-case analysis, with or without predictions<br>Advisors: <a href="#">Rüdiger Urbanke</a> and <a href="#">Ola Svensson</a>   |
| 09/2011-10/2017 | <b>National Technical University of Athens, Greece</b><br>Diploma (5-year joint degree; 300 ECTS),<br>Electrical and Computer Engineering (ECE)<br>Grade: 9.12 / 10 (approx. best 3%)<br><br>Thesis: Using Machine Learning Techniques to Infer<br>Players' Valuations in Online Ad Auctions<br>Advisor: <a href="#">Dimitris Fotakis</a> |
| 01/2016-06/2016 | <b>Universidad Carlos III Madrid, Spain</b><br>Erasmus Exchange Student Program   |
| 09/2005-06/2011 | <b>Lycée Léonin Nea Smirni, Greece</b><br>High School<br>Grade: 19.5 / 20 - Excellent   |

## LONG TERM RESEARCH VISITS

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|-----------------|---|
| 09/2022-11/2022 | <b>Simons Institute for the Theory of Computing , UC Berkeley</b><br>Visiting graduate student for the program <a href="#">Data-Driven Decision Processes</a> |
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## RESEARCH INTERESTS

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I am broadly interested in combinatorial optimization, online algorithms, machine learning and their intersection.

Currently, I am focusing on *Learning Augmented (Online) Algorithms*, where (informally) the goal is to design algorithms which provably outperform classical online algorithms when an accurate prediction about the future is available, while maintaining robustness against adversarial predictions.

## PUBLICATIONS

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Authors (as customary in theory) are in alphabetical order.

1. [Online and Consistent Correlation Clustering](#)  
**ICML 2022**  
V. Cohen-Addad, S. Lattanzi, A. Maggiori, N. Parotsidis
2. [An Improved Analysis of Greedy for Online Steiner Forest](#)  
**SODA 2022**  
É. Bamas, M. Drygala, A. Maggiori
3. [The Primal-Dual method for Learning Augmented Algorithms](#)  
**NeurIPS 2020 (oral talk)**  
É. Bamas, A. Maggiori, O. Svensson
4. [Learning Augmented Energy Minimization via Speed Scaling](#)  
**NeurIPS 2020 (spotlight presentation)**  
É. Bamas, A. Maggiori, L. Rohwedder, O. Svensson
5. [Online Matching with General Arrivals](#)  
**FOCS 2019**  
B. Gamlath, M. Kapralov, A. Maggiori, O. Svensson, D. Wajc

## THESES

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- Andreas Maggiori: *Beyond worst-case analysis, with or without predictions*.  
PhD Thesis, EPFL - École polytechnique fédérale de Lausanne, 2023.
- Andreas Maggiori: *Using Machine Learning Techniques to Infer Players' Valuations in Online Ad Auctions*.  
Master Thesis, National Technical University of Athens (NTUA), 2018.

## INVITED TALKS

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|---------|--|---|
| 06/2023 |  | INFORMS Applied Probability Society Conference, Nancy, France |
| 09/2022 |  | University of Massachusetts, Amherst (UMass), Amherst MA      |
| 06/2021 |  | Google Zurich, Zurich, Switzerland                            |

## PROGRAMMING SKILLS

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| Programming Languages (Excellent):     | PYTHON, C++, SQL                |
| Programming Languages (Familiar with): | C, SML/NJ, PROLOG, MATLAB, BASH |
| ML Frameworks (Familiar with):         | PyTorch                         |

## TEACHING EXPERIENCE

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I organized a study-group on how continuous optimization methods can be used to tackle combinatorial problems. The website of the study-group with notes and recorded lectures can be found [here](#).

I co-organized the [ALPS](#) (Algorithms with PredictionS) workshop at EPFL in May 2022, along with [Etienne Bamas](#) and [Adam Polak](#).

I was teaching assistant for the following courses:

- NTUA: Algorithms and Complexity, Discrete Mathematics
- EPFL: Theory of Computation, Machine Learning, Learning Theory, Algorithms, Advanced Probability and Applications, Foundations of Data Science

## AWARDS

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- 2017: 1st in the NTUA hub at 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 on 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

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

## REFERENCES

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- Ola Svensson: [ola.svensson@epfl.ch](mailto:ola.svensson@epfl.ch)
- Rüdiger Urbanke: [rudiger.urbanke@epfl.ch](mailto:rudiger.urbanke@epfl.ch)
- Silvio Lattanzi: [silviol@google.com](mailto:silviol@google.com)
- Vincent Cohen-Addad: [cohenaddad@google.com](mailto:cohenaddad@google.com)
- Nikos Parotsidis: [nikosp@google.com](mailto:nikosp@google.com)