

Alexandros Andreas Voudouris

Personal Information

- Date of Birth: 31 August 1990
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Academic positions

- **Postdoctoral researcher** (October 2018 – today)
Department of Computer Science
University of Oxford, UK
Supervisor: Edith Elkind

Education

- **Ph.D. in Computer Science and Technology** (2015 – 2018)
Department of Computer Engineering and Informatics
University of Patras, Greece
Thesis: *Design and analysis of algorithms for non-cooperative environments*
Advisor: Ioannis Caragiannis
- **M.Sc. in Computer Science and Technology** (2013 – 2014)
Department of Computer Engineering and Informatics
University of Patras, Greece
Thesis: *On the efficiency of divisible resource allocation mechanisms*
Advisor: Ioannis Caragiannis
GPA: 9.8/10 (top 1%)
- **Diploma in Computer Engineering and Informatics** (2008 – 2013)
University of Patras, Greece
Thesis: *Search algorithms for natural deduction proofs*
Advisor: Stavros Cosmadakis
GPA: 8.39/10 (top 1)

Schools

- **16th European Agent Systems Summer School (EASSS 2014)**
Chania, Greece, 14 – 18 July 2014
Supported by the Department of Computer Engineering and Informatics, University of Patras
- **Summer school on the Interdisciplinary Analysis of Voting Rules**
Caen, France, 8 – 12 July 2014
Supported by COST Action IC1205 on Computational Social Choice

Scholarships and awards

- Ph.D. scholarship by the Alexander S. Onassis Foundation (2016 – 2018)

- Ph.D. scholarship by the Caratheodory 2013 basic research project E.114 (2014 – 2016)
- Scholarship by the Limmat Foundation (2013)
- Scholarships by the Greek State Scholarships Foundation (IKY) (2008 – 2009, 2011)

Teaching Experience

University of Oxford, Department of Computer Science:

- Tutor for the course **Computational Game Theory** (Michaelmas term 2018)

University of Patras, Department of Computer Engineering and Informatics:

- TA for the course **Computational Complexity** (Spring 2014, 2018)
- TA for the course **Economic Theory and Algorithms** (Fall 2013 – 2017)
- TA for the course **Symbolic Programming Lab** (Spring 2011 – 2012)

Research Interests

- Design and analysis of algorithms
- Approximation algorithms
- Algorithmic game theory
- Computational social choice
- Artificial intelligence
- Wireless power transfer

Research Projects

- Basic research project E.114, supported by the University of Patras through the research funding program **Caratheodory** 2013, Greece, October 2014 – September 2016
- Basic research project Algorithmic Game Theory, supported by the European Social Fund and Greek national funds through the research funding program **Thales**, April 2014 – September 2014

Research Visits

- University of Oxford, hosted by Dr. Edith Elkind, 15 – 27 February 2015
Supported by COST Action IC1205 on Computational Social Choice

Community Service

- **PC member:** IJCAI 2018*
- **Reviewer (conferences):** AAMAS 2015, ICALP 2015, WINE (2015, 2018), SODA 2017, IJCAI 2017, EC 2017, SAGT 2017, COMSOC 2018, ISAAC 2018,
- **Reviewer (journals):** ARTINT

*Recognised as a distinguished PC member.

Journal Publications

[J5] **A note on the efficiency of position mechanisms with budget constraints**

- Alexandros A. Voudouris
- *Information Processing Letters*, 2019, in press

[J4] **Optimizing positional scoring rules for rank aggregation**

- Ioannis Caragiannis, Xenophon Chatzigeorgiou, George A. Krimpas, and Alexandros A. Voudouris
- *Artificial Intelligence*, 2019, in press

[J3] **Near-optimal asymmetric binary matrix partitions**

- Fidaa Abed, Ioannis Caragiannis, and Alexandros A. Voudouris
- *Algorithmica*, volume 80(1), pages 48–72, 2018

[J2] **Efficiency and complexity of price competition among single-product vendors**

- Ioannis Caragiannis, Xenophon Chatzigeorgiou, Panagiotis Kanellopoulos, George A. Krimpas, Nikos Protopapas, and Alexandros A. Voudouris
- *Artificial Intelligence*, volume 248, pages 9–25, 2017

[J1] **Welfare guarantees for proportional allocations**

- Ioannis Caragiannis and Alexandros A. Voudouris
- *Theory of Computing Systems*, volume 59(4), pages 581–599, 2016

Conference Publications

[C11] **Peer-to-peer energy-aware tree network formation**

- Adelina Madhja, Sotiris Nikolettseas, Dimitrios Tsolovos, and Alexandros A. Voudouris
- *Proceedings of the 16th ACM International Symposium on Mobility Management and Wireless Access (MOBIWAC)*, pages 1–8, 2018

[C10] **Mobility-aware, adaptive algorithms for wireless power transfer in ad hoc networks**

- Adelina Madhja, Sotiris Nikolettseas, and Alexandros A. Voudouris
- *Proceedings of the 14th International Symposium on Algorithms and Experiments for Wireless Sensor Networks (ALGOSENSORS)*, 2018
- Preliminary version presented at the *14th International Conference on Distributed Computing in Sensor Systems (DCOSS)* (invited poster)

[C9] **The efficiency of resource allocation mechanisms for budget-constrained users**

- Ioannis Caragiannis and Alexandros A. Voudouris
- *Proceedings of the 19th ACM Conference on Economics and Computation (EC)*, pages 681–698, 2018

[C8] **Bounding the inefficiency of compromise**

- Ioannis Caragiannis, Panagiotis Kanellopoulos, and Alexandros A. Voudouris
- *Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 142–148, 2017

[C7] **Optimizing positional scoring rules for rank aggregation**

- Ioannis Caragiannis, Xenophon Chatzigeorgiou, George A. Krimpas, and Alexandros A. Voudouris
 - *Proceedings of the 31st AAAI Conference on Artificial Intelligence (AAAI)*, pages 430–436, 2017
- [C6] **How effective can simple ordinal peer grading be?**
- Ioannis Caragiannis, George A. Krimpas, and Alexandros A. Voudouris
 - *Proceedings of the 17th ACM Conference on Economics and Computation (EC)*, pages 323–340, 2016
- [C5] **co-rank: an online tool for collectively deciding efficient rankings among peers**
- Ioannis Caragiannis, George A. Krimpas, Marianna Panteli, and Alexandros A. Voudouris
 - *Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI)*, pages 4351–4352, 2016
- [C4] **Near-optimal asymmetric binary matrix partitions**
- Fidaa Abed, Ioannis Caragiannis, and Alexandros A. Voudouris
 - *Proceedings of the 40th International Symposium on Mathematical Foundations of Computer Science (MFCS)*, pages 1–13, 2015
- [C3] **Efficiency and complexity of price competition among single-product vendors**
- Ioannis Caragiannis, Xenophon Chatzigeorgiou, Panagiotis Kanellopoulos, George A. Krimpas, Nikos Protopapas, and Alexandros A. Voudouris
 - *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 25–31, 2015
- [C2] **Aggregating partial rankings with applications to peer grading in massive online open courses**
- Ioannis Caragiannis, George A. Krimpas, and Alexandros A. Voudouris
 - *Proceedings of the 14th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*, pages 675–683, 2015
- [C1] **Welfare guarantees for proportional allocations**
- Ioannis Caragiannis and Alexandros A. Voudouris
 - *Proceedings of the 7th International Symposium on Algorithmic Game Theory (SAGT)*, pages 206–217, 2014

Manuscripts

- [M1] **Truthful mechanisms for ownership transfer with expert advice**
- Ioannis Caragiannis, Aris Filos-Ratsikas, Swaprava Nath, and Alexandros A. Voudouris
 - *arXiv:1802.01308*, February 2018
 - Preliminary version presented at the *first Workshop on Opinion Aggregation, Dynamics, and Elicitation (in conjunction with EC18)*

Talks and Presentations

Design and analysis of algorithms for non-cooperative environments

- *PhD thesis defence*, University of Patras, Greece, 14 September 2018

Truthful mechanisms for ownership transfer with expert advice

- *14th Conference on Web and Internet Economics (WINE)*, Oxford, UK, 15 December 2018 (poster and lightning talk)

- *First Workshop on Opinion Aggregation, Dynamics, and Elicitation*, Ithaca, New York, USA, 22 June 2018

The efficiency of resource allocation mechanisms for budget-constrained users

- *19th ACM Conference on Economics and Computation (EC)*, Ithaca, New York, USA, 21 June 2018
- *12th Athens Colloquium on Algorithms and Complexity (ACAC)*, Athens University of Economics and Business, Greece, 24 August 2017

Optimizing positional scoring rules for rank aggregation

- *31st AAAI Conference on Artificial Intelligence (AAAI)*, San Francisco, California, USA, 8 February 2017

How effective can simple ordinal peer grading be?

- *17th ACM Conference on Economics and Computation (EC)*, Maastricht, Netherlands, 26 July 2016
- *11th Athens Colloquium on Algorithms and Complexity (ACAC)*, University of Athens, Greece, 25 August 2016

co-rank: an online tool for collectively deciding efficient rankings among peers

- *30th AAAI Conference on Artificial Intelligence (AAAI)*, Phoenix, Arizona, USA, 14 February 2016

Near-optimal asymmetric binary matrix partitions

- *40th International Symposium on Mathematical Foundations of Computer Science (MFCS)*, Milano, Italy, 24 August 2015
- *First Algorithmic Game Theory Athens Workshop (AGaThA)*, National Technical University of Athens, Greece, 27 May 2015 (invited)

Aggregating partial rankings with applications to peer grading in MOOCs

- *14th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*, Istanbul, Turkey, 8 May 2015 (poster presentation)
- *10th Athens Colloquium on Algorithms and Complexity (ACAC)*, National Technical University of Athens, Greece, 20 August 2015

Welfare guarantees for proportional allocations

- *MSc thesis defence*, University of Patras, Greece, 9 December 2014 (based on this paper)
- *7th International Symposium on Algorithmic Game Theory (SAGT)*, Patras, Greece, 2 October 2014
- *9th Athens Colloquium on Algorithms and Complexity (ACAC)*, National Technical University of Athens, Greece, 21 August 2014