

# Alexandros Andreas Voudouris

## Personal Information

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Date of Birth 31 August 1990  
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## Education

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- 2015 – today **Ph.D. student in Computer Science and Technology**  
Department of Computer Engineering and Informatics  
University of Patras, Greece  
Advisor: Ioannis Caragiannis
- 2013 – 2014 **M.Sc. in Computer Science and Technology**  
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%)
- 2008 – 2013 **Diploma in Computer Engineering and Informatics**  
University of Patras, Greece  
Thesis: *Search algorithms for natural deduction proofs*  
Advisor: Stavros Cosmadakis  
GPA: 8.39/10 (top 1)

## Schools

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- **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 the COST Action IC1205 on Computational Social Choice

## Scholarships and awards

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- Ph.D. scholarship by the Onassis Foundation (2016 – 2018)
- Ph.D. scholarship by the Caratheodory 2013 basic research project E.114 (2014 – 2016)

- Scholarship by the Limmatt Foundation (2013)
- Scholarships by the Greek State Scholarships Foundation (IKY) (2008 – 2009, 2011)

## Teaching Experience

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

## Research Interests

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

## Research Projects

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- 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

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

## Talks and Presentations

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### The efficiency of resource allocation mechanisms for budget-constrained users

- *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 Fransisco, 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
- 1st 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**

- *M.Sc. 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

### **Journal Publications**

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- **Near-optimal asymmetric binary matrix partitions**  
Fidaa Abed, Ioannis Caragiannis, and Alexandros A. Voudouris  
*Algorithmica*, volume 80(1), pages 48–72, 2018
- **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
- **Welfare guarantees for proportional allocations**  
Ioannis Caragiannis and Alexandros A. Voudouris  
*Theory of Computing Systems*, volume 59(4), pages 581–599, 2016

### **Conference Publications**

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- **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

- **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
- **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
- **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
- **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)*, LNCS 9235, Springer, pages 1–13, 2015
- **Efficiency and computational complexity in 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
- **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
- **Welfare guarantees for proportional allocations**  
Ioannis Caragiannis and Alexandros A. Voudouris  
*Proceedings of the 7th International Symposium on Algorithmic Game Theory (SAGT)*, LNCS 8768, Springer, pages 206–217, 2014

## Manuscripts

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- **Truthful mechanisms for ownership transfer with expert advice**  
Ioannis Caragiannis, Aris Filos-Ratsikas, Swaprava Nath, and Alexandros A. Voudouris  
*arXiv:1802.01308*, February 2018
- **Mobility-aware, adaptive algorithms for wireless power transfer in ad hoc networks**  
Adelina Madhja, Sotiris Nikolettseas, and Alexandros A. Voudouris  
*arXiv:1802.00342*, February 2018
- **The efficiency of resource allocation mechanisms for budget-constrained users**  
Ioannis Caragiannis and Alexandros A. Voudouris  
*arXiv:1707.03551*, July 2017

## Professional Service

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**PC member:** IJCAI 2018

**(sub)Reviewer:** AAMAS 2015, ICALP 2015, WINE 2015, SODA 2017, IJCAI 2017, EC 2017, SAGT 2017