Angelos Aveklouris

⌂ The University of Chicago
Booth School of Business
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Research interests

I develop policies that promote efficient management of service firms. This could mean optimizing the charging of electric vehicles or optimizing the matching of demand and supply in online platforms. Solving such problems requires tools from probability, statistics, queueing theory, optimization, and engineering.

Education

Research positions

Sept. 2019 – present **Principal Researcher of Operations Management**
The University of Chicago Booth School of Business.
Supervisor: Prof. Amy R. Ward.

Academic degrees

Sept. 2015 – Aug. 2019 **PhD in Applied Mathematics**
Department of Mathematics and Computer Science, Eindhoven University of Technology, the Netherlands.
Supervisors: Prof. Maria Vlasiou, Prof. Bert Zwart.
Thesis committee: S.C. Borst, R.J.R. Cruise, M. Gibescu, J.L. Hurink, S. Kapodistria, M. Vlasiou, A.P. Zwart.

Sept. 2015 – Sept. 2018 **LNMB Diploma** (Diploma in Probability Theory and Operations Research)
Dutch Network on the Mathematics of Operations Research.

Sept. 2013 – June 2015 **Master's in Financial Engineering** (Grade: Excellent)
Department of Mathematics, Technical University of Athens, Greece.
Thesis advisor: Prof. Gerassimos A. Athanassoulis.

Sept. 2008 – July 2012 [1] **Bachelor's in Mathematics**
Major Field: Applied Mathematics.
Minor Field: Statistics and Operations Research.
Department of Mathematics, National and Kapodistrian University of Athens, Greece.

Publications

Working Papers (Under preparation)

[W1] **Angelos Aveklouris, Levi DeValve, and Amy R. Ward. Matching impatient and heterogeneous demand and supply. *Job market paper*.** *Under preparation.*

[W2] Angelos Aveklouris, Levi DeValve, and Amy R. Ward. A blind, greedy policy for a matching network with reneging. *Under preparation.*

[W3] Angelos Aveklouris and Amy R. Ward. A fluid approximation for a two-sided matching network with reneging. *Under preparation.*

[1] Sept. 2012 – July 2013: Mandatory military service for Greek citizens

JOURNAL PUBLICATIONS

[J1] Angelos Aveklouris, Maria Vlasiou, and Bert Zwart. A fluid model of an electric vehicle charging network (2021). *Forthcoming in Stochastic Systems.* https://arxiv.org/pdf/2004.05637.pdf

[J2] Angelos Aveklouris, Maria Vlasiou, and Bert Zwart (2019). Bounds and limit theorems for a layered queueing model in electric vehicle charging. Queueing Systems: Theory and Applications, 93(1): 83–137. https://arxiv.org/pdf/1810.05473.pdf

[J3] Angelos Aveklouris, Maria Vlasiou, and Bert Zwart (2019). A stochastic resource-sharing network for electric vehicle charging. IEEE Transactions on Control of Network Systems, 6(3): 1050–1061. https://arxiv.org/pdf/1711.05561.pdf

[J4] Angelos Aveklouris, Maria Vlasiou, Jiheng Zhang, and Bert Zwart (2017). Heavy-traffic approximations for a layered network with limited resources. Probability and Mathematical Statistics, 37(2): 497–532. https://arxiv.org/pdf/1701.03370.pdf

CONFERENCE PROCEEDINGS

[C1] Angelos Aveklouris, Yorie Nakahira, Maria Vlasiou, and Bert Zwart (2017). Electric vehicle charging: a queueing approach. ACM SIGMETRICS Performance Evaluation Review 45 (2), 33-35. https://arxiv.org/pdf/1712.08747.pdf

THESES

[T1] Angelos Aveklouris (2020). Layered stochastic networks with limited resources. PhD thesis, Eindhoven University of Technology, Eindhoven, the Netherlands. ISBN: 978-90-386-4966-5.

[T2] Angelos Aveklouris (2015). Integral approximation of pdfs and its connection with large sample theory. Master thesis, Technical University of Athens, Greece. http://dspace.lib.ntua.gr/handle/123456789/41432?locale-attribute=en

RESEARCH TALKS

TALKS

Oct. 2021	A fluid approximation for a matching network with reneging. INFORMS Annual Meeting, Anaheim, USA.
June 2021	Matching impatient and heterogenous demand and supply in service platforms. Revenue Management and Pricing Section Conference (Virtual).
June 2021	Matching impatient and heterogenous demand and supply in service platforms. Manufacturing and Service Operations Management Conference (Virtual).
May 2021	Matching impatient demand and supply in service platforms. UCSD Stochastic Systems Seminar, CA, USA.
Nov. 2020	Matching in service platforms. Virtual INFORMS Annual Meeting.
May 2020	Matching impatient demand and supply. Operations Management/Management Science Workshop. The University of Chicago Booth School of Business, Illinois, USA.
Nov. 2018	Stochastic networks for electric vehicle charging. INFORMS Annual Meeting, Phoenix, USA.
July 2018	A novel application of layered queueing networks in electric vehicle charging. European Conference on Queueing Theory, Jerusalem, Israel.
Jan. 2018	A stochastic resource-sharing network for electric vehicle charging. 43th Conference on the Mathematics of Operations Research, Lunteren, the Netherlands.

Dec. 2017 A stochastic resource-sharing network for electric vehicle charging. 11th Young European Queueing Theorists workshop, Eindhoven, the Netherlands.

July 2017 Electric vehicle charging – a queueing approach. 19th INFORMS APS Conference, Evanston, USA.

Jan. 2017 A diffusion approximation in a two-layered network. 42th Conference on the Mathematics of Operations Research, Lunteren, the Netherlands.

July 2016 State space collapse for a two-layered network. European Conference on Queueing Theory, Toulouse, France.

May 2016 State space collapse for a two-layered network. PhD Colloquium, Eindhoven University of Technology, the Netherlands.

Posters

June 2018 Stochastic networks for electric vehicle charging. Stochastic Networks Conference, Edinburgh, UK.

April 2018 Queueing networks for electric vehicle charging. Dutch Mathematical Congress, Veldhoven, the Netherlands.

Teaching Experience

Courses Taught

2019 – 2020 Teaching assistant, The University of Chicago Booth School of Business.

- Managing Service Operations (Bus 40110, MBA), Winter 2019–2020.

2015 – 2018 Graduate teaching assistant, Eindhoven University of Technology.

- Mathematics 2 (2DD50), Fall 2016–2017 (Semester A Quartile 2) and Fall 2017–2018 (Semester A Quartile 2).
- Stochastic performance modeling (2WB60), Spring 2016–2017 (Semester B Quartile 3) and Spring 2017–2018 (Semester B Quartile 3).
- Statistics (2DD80), Spring 2015–2016 (Semester B Quartile 4) and Spring 2016–2017 (Semester B Quartile 4).
- Statistics (2DL20), Fall 2016–2017 (Semester A Quartile 2).
- Biostatistics and Linear Algebra (2DM80), Spring 2015–2016 (Semester B Quartile 3) and Spring 2016–2017 (Semester B Quartile 3).
- Linear Algebra and Statistics (6A6X0), Fall 2015–2016 (Semester A Quartile 2).

Professional Service

Referee for *IEEE Transactions on Control of Network Systems*, *IEEE Transactions on Automatic Control*, *Operations Research*, *Mathematics of Operations Research*, *Stochastic Systems*, *Queueing Systems*, *Applied Probability Journals*, *Performance Evaluation*.

Helped advise MA student Yin Li, The University of Chicago.

Research activities

Long-term visits

Jan. – May 2019 The mathematics of energy systems, Isaac Newton Institute, Cambridge, UK.

November 2016 Algorithms and Uncertainty programme, The Simons Institute for the Theory of Computing, Berkeley, USA.

March 2016 Hong Kong University of Science and Technology, Hong Kong.

Travel Grants

June 2018	Stochastic Network Conference, Edinburgh, UK.
July 2017	19th INFORMS APS Conference, Evanston, USA.
June 2016	Stochastic Network Conference, San Diego, USA.

Certifications

December 2020	**Machine Learning** Stanford University, Coursera.
December 2020	**SQL for Data Science** University of California, Davis, Coursera.
April 2018	**Practical Data Analysis using R for Researchers** Eindhoven University of Technology, the Netherlands.

Development

- Working on a data-driven project using machine learning techniques for a fitness company.
- Attendance of the course *Scientific Integrity*, offered by Eindhoven University of Technology.
- Attendance of the course *Testable Learning Outcomes*, offered by Eindhoven University of Technology.

Skills

Programming Languages	Mathematica, Matlab, R, Python, SQL
Software	LaTeX, Microsoft Office (Word, Excel, Power Point), SPSS
Languages	Greek (native), English

References

Amy R. Ward
Professor
Operations Management
The University of Chicago Booth School of Business
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Bert Zwart
Professor
Stochastics Group
Centrum Wiskunde & Informatica
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Levi DeValve
Assistant Professor
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Maria Vlasiou
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