

Leonidas Tsepenekas

Curriculum Vitae

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Research Interests

Main Topics: Algorithmic Fairness, Explainability, Approximation and Randomized Algorithms, Combinatorial and Stochastic Optimization, Machine Learning, Clustering and Facility Location Problems.

Education

08/2017–05/2023 (Expected) **University of Maryland, College Park, PhD in Theoretical Computer Science**, Graduate courses: Applied Mechanism Design for Social Good, Advanced Algorithms, Quantum Information Processing, Complexity Theory, Approximation Algorithms, Machine Learning and Algorithms for Analyzing Mutations in Cancer, Algorithms in Machine Learning: Guarantees and Analyses, Advanced Numerical Optimization.

10/2010–09/2016 **National Technical University of Athens (NTUA), Athens, Greece.**

- BSc & MSc in Electrical and Computer Engineering (5-year joint degree, 300 ECTS)
 - Grade: 8.84/10 (top 5% of my class)
 - Grade in major: 9.456/10
- Thesis: "[Approximation Algorithms for Scheduling Malleable Jobs](#)".

2010 **High School Graduation**, 14th *High School of Peristeri*.

Nationwide University Entrance Examination Score: 19.375/20.000, the highest among all students of the school, top 1% nationwide.

Teaching Experience

- 2015-2017 *Computer Programming and Algorithms and Complexity* courses at NTUA
- Fall 2017 Teaching assistant at UMD for CMSC 351: Introduction to Algorithms
- Spring 2018 Teaching assistant at UMD for CMSC 351: Introduction to Algorithms
- Summer 2018 Teaching assistant at UMD for CMSC 250: Discrete Mathematics
- Fall 2018 Teaching assistant at UMD for CMSC 351: Introduction to Algorithms
- Spring 2019 Teaching assistant for CMSC 451: Design and Analysis of Computer Algorithms

Reviewing Experience

- 2018 **TALG-2018**, *ACM Transactions on Algorithms*.
- 2021 **ICML-2021**, *International Conference on Machine Learning*.
- 2021 **NeurIPS-2021**, *Conference on Neural Information Processing Systems*.
- 2022 **AISTATS-2022**, *International Conference on Artificial Intelligence and Statistics*.

Work Experience

- 05/2019–08/2019 **Research Intern**, *University of Virginia Biocomplexity Institute and Initiative*. Supervised by Anil Vullikanti.
- 06/2022–08/2022 **AI Summer Research Associate**, *JPMorgan Chase & Co.* Supervised by Ivan Brugere.

Publications

- 2016 **Improving Scheduling Of Data Transmission In Tdma Systems**, *T. Aslanidis, L. Tsepenekas*, (Alphabetic Order), (ICAIT).
- 2016 **Message Routing in Wireless and Mobile Networks Using TDMA Technology**, *T. Aslanidis, L. Tsepenekas*, (Alphabetic Order), *International Journal of Wireless & Mobile Networks*.
- 2019 **A Unified Approach to Online Matching with Conflict-Aware Constraints**, *P. Xu, Y. Shi, H. Cheng, J.P. Dickerson, K.A. Sankararaman, A. Srinivasan, Y. Tong, L. Tsepenekas*, *AAAI*.
- 2020 **A Pairwise Fair and Community-preserving Approach to k-Center Clustering**, *B. Brubach, J.P. Dickerson, S. Khuller, A. Srinivasan, L. Tsepenekas*, (Alphabetic Order), *ICML*.
- 2020 **Probabilistic Fair Clustering**, *S.A. Esmaeili, B. Brubach, L. Tsepenekas, J.P. Dickerson*, *NeurIPS*.
- 2021 **Fairness, Semi-Supervised Learning, and More: A General Framework for Clustering with Stochastic Pairwise Constraints**, *B. Brubach, J.P. Dickerson, A. Srinivasan, L. Tsepenekas*, (Alphabetic Order), *AAAI*.
- 2021 **Approximating Two-Stage Stochastic Supplier Problems**, *B. Brubach, N. Grammel, D. Harris, A. Srinivasan, L. Tsepenekas, A. Vullikanti*, (Alphabetic Order), *APPROX*.
- 2022 **Deploying Vaccine Distribution Sites for Improved Accessibility and Equity to Support Pandemic Response**, *G. Li, A. Li, M. Marathe, A. Srinivasan, L. Tsepenekas, A. Vullikanti*, (Alphabetic Order), *AAMAS*.
Best Student Paper Award
- 2022 **A New Notion of Individually Fair Clustering: α -Equitable k -Center**, *D. Chakrabarti, J.P. Dickerson, S.A. Esmaeili, A. Srinivasan, L. Tsepenekas*, (Alphabetic Order), *AISTATS*.
- 2022 **Fair Disaster Containment via Graph-Cut Problems**, *M. Dinitz, A. Srinivasan, L. Tsepenekas, A. Vullikanti*, (Alphabetic Order), *AISTATS*.
- 2022 **Controlling Epidemic Spread using Probabilistic Diffusion Models on Networks**, *A. Babay, M. Dinitz, A. Srinivasan, L. Tsepenekas, A. Vullikanti*, (Alphabetic Order), *AISTATS*.
- 2022 **Comparing Apples to Oranges: Learning Similarity Functions for Data Produced by Different Distributions**, *I. Brugere, L. Tsepenekas*, (Alphabetic Order), *Working Paper*.

Tutorials

2021 **Co-organized tutorial on Fair Clustering, which was presented at AAAI 2021.**
Check fairclustering.com

Honors and Awards

Eurobank **"A great moment for education"**.
For graduating with the highest score in my high school

University of Maryland **Dean's Fellowship.**

Gerontelis Foundation **Graduate Studies Scholarship.**

University of Maryland **Ann G. Wylie Dissertation Fellowship.**

Programming & Computer skills

Programming C/C++, Python, Java, Haskell, ML
Skills Linux/Unix, Windows, \LaTeX

Languages

Greek Native
English Fluent