Curriculum Vitae

Stratis Skoulakis

Personal Info

Full Name	Efstratios Panteleimon Skoulakis
Date of Birth	27/07/1990
Place of Birth	Heraklion, Crete
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Education

2019	**PhD in Algorithmic Game Theory** - National Technical University of Athens
2016	**MSc. in Logic, Algorithms and Computation** - National University of Athens
2014	**Diploma in Electrical and Computer Engineering** - National Technical University of Athens

Working Experience

2021-today

Postdoctoral Researcher - École Polytechnique Fédérale de Lausanne (EPFL)

Since 2021 I am part of the Laboratory for Information and Inference Systems at EPFL hosted by Prof. Volkan Cevher.

- I have developed new optimization methods for the training of deep neural networks as well as new online decision making algorithms. My research has been published at top international machine learning conferences (NeurIPS/ICML).

- I have been collaborating with Planny SA, Geneva for develloping deep learning-based algorithms for efficient shift scheduling in healthcare.

- I supervise Master and PhD students and I am a teaching assistant in the graduate course *Online Learning in Games*.

2019 - 2021

Postdoctoral Researcher - Singapore University of Technology and Design (SUTD)

Between 2019 - 2021 I was a research scientist at SUTD hosted by Prof. Georgios Piliouras.

- I worked on the design of online decision making algorithms as well as on the analysis of multi-agent economic systems. My research has been published in top-tier conferences (STOC/ICALP/NeurIPS/ICML).

- I collaborated with Ethereum Foundation for analyzing the EIP-1559 Etherum Fee Market.

Research Interests

Algorithmic Game Theory • Convex Optimization • Approximation and Online Algorithms • Machine Learning

Scholarships and Awards

2014-2018	Scholarship for PhD studies from "Alexander S. Onassis Public Benefit Foundation".
2004-2007	Distinction at the Panhellenic Mathematical Competition *"Thales"*.

Publications (*first author contribution**, *alphabetic order*$^\#$)

2023 **Semi Bandit dynamics in Congestion Games: Convergence to Nash Equilibrium and No-Regret Guarantees.** I. Panageas*, S. Skoulakis*, L. Viano*, X. Wang and V. Cevher
International Conference on Machine Learning (ICML 2023, Oral)

- **STay-ON-the-Ridge: Guaranteed Convergence to Local Minimax Equilibrium in Nonconvex-Nonconcave Games**$^\#$ C. Daskalakis, N. Golowich, S. Skoulakis and M. Zampetakis
Conference on Learning Theory (COLT 2023)

- **Min-Max Optimization Made Simple: Approximating the Proximal Point Method via Contraction Maps**$^\#$**.** V. Cevher, G. Piliouras, R. Simm and S. Skoulakis
SIAM Symposium on Simplicity in Algorithms (SOSA 2023)

2022 **Adaptive Stochastic Variance Reduction for Non-convex Finite-Sum Minimization** A. Kavis*, S. Skoulakis*, L. Dadi, K. Antonakopoulos and V. Cevher
Neural Information Processing Systems (NeurIPS 2022)

- **Beyond Time-Average Convergence: Near-Optimal Uncoupled Online Learning via Clairvoyant Multiplicative Weights Update**$^\#$ G. Piliouras, R. Simm and S. Skoulakis
Neural Information Processing Systems (NeurIPS 2022)

- **Fast Convergence of Optimistic Gradient Ascent in Network Zero-Sum Extensive Form Games**$^\#$ G. Piliouras, L. Ratliff, R. Simm and S. Skoulakis
Symposium on Algorithmic Game Theory (SAGT 2022)

2021 **The Complexity of Constrained Min-Max Optimization**$^\#$**.** C. Daskalakis, S. Skoulakis and E. Zampetakis *ACM Symposium on Theory of Computing (STOC 2021)*

- **Efficient Online Learning for Dynamic k-Clustering**$^\#$**.** D. Fotakis, G. Piliouras and S. Skoulakis
International Conference on Machine Learning (ICML 2021)

- **Online Learning in Periodic Zero-Sum Games** T. Fiez*, R. Simm*, S. Skoulakis*, G. Piliouras, L. Ratliff *Neural Information Processing Systems (NeurIPS 2021)*

- **On the Approximability of Dynamic Min-Sum Set Cover**$^\#$**.** D. Fotakis, P. Kostopanagiotis, V. Nakos, G. Piliouras and S. Skoulakis *International Colloquium on Automata, Languages and Programming (ICALP 2021)*

- **Evolutionary Game Theory Squared: Evolving Agents in Evolving Games.** S. Skoulakis*, T. Fiez, R. Sim, G. Piliouras and L. Ratliff *AAAI Conference on Artificial Intelligence (AAAI 2021)*

- **Counting Induced Subgraphs Under Noise: The Power of Neighborhood Queries**$^\#$**.** D. Fotakis, T. Pittas and S. Skoulakis *AAAI Conference on Artificial Intelligence (AAAI 2021)*

- **Dynamical analysis of the EIP-1559 Ethereum fee market** S. Leonardos*, B. Monnot*, D. Reijsbergen*, S. Skoulakis* and G. Piliouras *ACM conference on Advances in Financial Technologies (AFT 2021)*

- **Transaction Fees on a Honeymoon: Ethereum's EIP-1559 One Month Later** D. Reijsbergen*, S. Sridhar*, B. Monnot, S. Leonardos, S. Skoulakis and G. Piliouras: *IEEE International Conference on Blockchain (Blockchain 2021)*

2020	**Efficient Online Learning of Optimal Rankings: Dimensionality Reduction via Gradient Descent**[#]. D. Fotakis, T. Lianeas, G. Piliouras and S. Skoulakis *Neural Information Processing Systems (NeurIPS 2020)*
-	**Online Min-Sum Set Cover problem**[#]. D. Fotakis, L. Kavouras, G. Koumoutsos, S. Skoulakis and M. Vardas *International Colloquium on Automata, Languages and Programming (ICALP 2020)*
-	**Node-Max-Cut and the Complexity of Equilibrium in Linear Weighted**[#]. **Congestion Games** D. Fotakis, V. Kandiros, T. Lianeas, N. Mouzakis, P. Patsilinakos and S. Skoulakis *International Colloquium on Automata, Languages and Programming (ICALP 2020)*
2019	**Reallocating Multiple Facilities on the Line**[#]. D. Fotakis, L. Kavouras, P. Kostopanagiotis, P. Lazos, S. Skoulakis and N. Zarifis *International Joint Conference on Artificial Intelligence (IJCAI 2019)*
-	**Opinion Formation Games with Aggregation and Negative Influence**[#]. M.Epitropou, D. Fotakis, M. Hoefer and S. Skoulakis *Theory of Computing Systems (TOCS 2019)*
2018	**Opinion Dynamics with Limited Information**[#]. D. Fotakis, V. Kandiros, V. Kontonis and S. Skoulakis *International Conference on Web and Internet Economics (WINE 2018)*
2017	**Opinion Formation Games with Aggregation and Negative Influence**[#]. M. Epitropou, D. Fotakis, M. Hoefer and S. Skoulakis *International Symposium on Algorithmic Game Theory (SAGT 2017)*
2016	**Opinion Dynamics with Local Interactions**[#]. D. Fotakis, D. Palyvos-Giannas and S. Skoulakis *International Joint Conference on Artificial Intelligence (IJCAI 2016)*

References

Costis Daskalakis	Massachusetts Institute of Technology (MIT) - costis@csail.mit.edu
Volkan Cevher	École Polytechnique Fédérale de Lausanne (EPFL) - volkan.cevher@epfl.ch
Dimitris Fotakis	National Technical University of Athens (NTUA) - fotakis@cs.ntua.gr
Giorgos Piliouras	Singapore University of Technology and Design (SUTD) - georgios.piliouras@gmail.com