

Zampetakis V. Emmanouil (Manolis) – *Postdoc at University of California Berkeley*

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RESEARCH INTERESTS Theoretical Machine Learning, Statistics, Computational Learning Theory, Complexity Theory, Game Theory, Mechanism Design, Sublinear Algorithms.

EDUCATION **Massachusetts Institute of Technology**, Cambridge, MA

Doctor of Philosophy in Theoretical Computer Science, 2016 - 2020

- *Thesis* : Statistics in High Dimensions without IID Samples: Truncated Statistics and Minimax Optimization
- *Advisor* : Constantinos Daskalakis

Master of Science in Computer Science, 2014 - 2016

- *Thesis* : Contraction Maps and Applications to the Analysis of Iterative Algorithms
- *GPA* : 5.0/5.0

National Technical University of Athens, Athens, Greece

Diploma in Engineering 2008 - 2014

Electrical and Computer Engineering

- *Thesis* : Mechanism Design with Verification
- *GPA* : 9.5/10 (top 1 %)

EMPLOYMENT HISTORY **Postdoc, University of California Berkeley** 2020 -
at Statistical Artificial Intelligence Lab (SAIL), working with Michael Jordan

Research Intern, Microsoft Research, New England Summer 2019

Research Intern, Yahoo! Research, New York City Summer 2018

Research Intern, Google Research, New York City Summer 2017

WORKING PAPERS **The Complexity of Constrained Min-Max Optimization** with C. Daskalakis, S. Skoulakis
Hypotheses Testing for Ranking Distributions with R. Fekete, D. Fotakis, B. Szörényi

PUBLICATIONS **A Topological Characterization of Modulo-p Arguments and Implications for
Necklace Splitting** with A. Filos-Ratsikas, A. Hollender and K. Sotiraki
32nd ACM-SIAM Symposium on Discrete Algorithms (SODA) 2021

Constant-Expansion Suffices for Compressed Sensing with Generative Priors with
C. Daskalakis, D. Rohatgi,
34th Conference on Neural Information Processing Systems (NeurIPS) **Spotlight** 2020

Optimal Approximation - Smoothness Tradeoffs for Soft-Max Functions with A.
Epasto, M. Mahdian, V. Mirrokni,
34th Conference on Neural Information Processing Systems (NeurIPS) **Spotlight** 2020
Preliminary version: Learning in Presence of Strategic Behavior Workshop@EC, 2019

Truncated Linear Regression in High Dimensions with C. Daskalakis, D. Rohatgi,
34th Conference on Neural Information Processing Systems (NeurIPS) 2020

Estimation and Inference with Trees and Forests in High Dimensions with V.Syrgranis
33rd Annual Conference on Learning Theory (COLT) 2020

More Revenue from Two Samples via Factor Revealing SDPs with C. Daskalakis
21st ACM Conference on Economics and Computation (EC) 2020

Consensus-Halving: Does it Ever Get Easier? 21st ACM Conference on Economics
and Computation (EC) 2020

On the Complexity of Modulo-p Arguments with M. Göös, P. Kamath, K. Sotiraki
35th Computational Complexity Conference (CCC) 2020

**A Theoretical and Practical Framework for Regression and Classification from
Truncated Samples** with C. Daskalakis, A. Ilyas
23rd International Conference on Artificial Intelligence and Statistics (AISTATS) 2020

Efficient Truncated Statistics with Unknown Truncation with V. Kontonis, C. Tzamos,
60th Annual IEEE Symposium on Foundations of Computer Science (FOCS), 2019

Computationally and Statistically Efficient Truncated Regression with C. Daskalakis,
T. Gouleakis, C. Tzamos,
32nd Conference on Learning Theory (COLT), 2019

Optimal Learning of Mallows Block Model with R. Fekete, D. Fotakis, B. Szörényi,
32nd Conference on Learning Theory (COLT), 2019

Efficient Statistics, in High Dimensions, from Truncated Samples with C. Daskalakis,
T. Gouleakis, C. Tzamos,
59th Annual IEEE Symposium on Foundations of Computer Science (FOCS), 2018

PPP-Completeness with Connections to Cryptography with K. Sotiraki, G. Zirdelis,
59th Annual IEEE Symposium on Foundations of Computer Science (FOCS), 2018

Certified Computation from Unreliable Data Sets with T. Gouleakis, C. Tzamos,
31th Annual Conference on Learning Theory (COLT), 2018

A Converse to Banach's Fixed Point Theorem and its CLS-Completeness with C.
Daskalakis, C. Tzamos
31th Annual Conference on Learning Theory (COLT), 2018

Bootstrapping EM via Power EM and Convergence in the Naive Bayes Model with
C. Daskalakis, C. Tzamos
21st International Conference on Artificial Intelligence and Statistics (AISTATS), 2018

Ten Steps of EM Suffice for Mixtures of Two Gaussians with C. Daskalakis, C.
Tzamos
30th Annual Conference on Learning Theory (COLT), 2017

Faster Sublinear Algorithms via Conditional Sampling with T. Gouleakis, C. Tzamos
28th ACM-SIAM Symposium on Discrete Algorithms (SODA), 2017

Mechanism Design with Selective Verification with D. Fotakis, C. Tzamos
17th ACM Economics and Computation (EC), 2016

Efficient Money Burning in General Domains with D. Fotakis, Tsipras D., C. Tzamos
8th International Symposium on Algorithmic Game Theory (SAGT), 2015
Theory of Computing Systems, 2016 **Invited. Special Issue for SAGT 2015.**

Scheduling MapReduce Jobs and Data Shuffle on Unrelated Processors with D. Fotakis, I. Milis, O. Papadigenopoulos, G. Zois
14th International Symposium on Experimental Algorithms (SEA), 2015

Truthfulness Flooded Domains and the Power of Verification for Mechanism Design
with D. Fotakis
9th Conference on Web and Internet Economics (WINE), 2013
ACM Transactions on Economics and Computation, 2015 **Invited. Special Issue for WINE 2013.**

AWARDS	Google Ph.D. Fellowship 2018 Testing the Limits Award in COLT 2017 “For first submission last updates.” 2017 Special Issue for the 8th International Symposium on Algorithmic Game Theory 2015 Special Issue for the 9th Conference on Web and Internet Economics 2013 Second Prize in 19th International Mathematics Competition (IMC) 2012 Papakyriakopoulos Award for excellence in Mathematics 2009 Fourth place in Panhellenic Physics Competition 2008 Member of the Greek team in 39th International Physics Olympiad 2008
SERVICE EXPERIENCE	Organizer of Workshop on Algorithms for Learning and Economics (WALE), 2019 Organizer of workshop on Total Search Problems @ FOCS, 2018 Member of Committees: <i>AISTATS '19, ICML '19, NeurIPS '19, AAAI '20, AISTATS '20, COLT '20, NeurIPS '20, AISTATS '21</i>
TEACHING EXPERIENCE	TA for Graduate Courses: - MIT 6.883 “Science of Deep Learning” <i>Spring 2018</i> - MIT 6.853 “Algorithmic Game Theory and Data Science” <i>Spring 2017</i> - MIT 6.891 “Games, Decision, and Computation” <i>Spring 2015</i> TA for Undergraduate Courses: - MIT 6.046 “Design and Analysis of Algorithms” <i>Spring 2016</i> - NTUA “Algorithms and Complexity” <i>Fall 2012, 2013</i> - NTUA “Discrete Mathematics” <i>Spring 2011</i> - NTUA “Introduction to Computer Programming” <i>Fall 2011, 2012, 2013</i>
ACTIVITIES	Sound Palettes Project 2011 - 2012 Voluntary blood donor 2009 - present
TECHNICAL SKILLS	Programming Languages: C/C++, Python, ML/Ocaml Web Development: JavaScript, PHP Applications: MATLAB, Mathematica, LabView
EXTRAS – HOBBIES	Music : amateur harmonica and baglama player Sports : jogging, basketball, swimming