

Thanasis Pittas

Website: thanasispittas.github.io

RESEARCH INTERESTS

Machine Learning, Statistics, Theoretical Computer Science

EDUCATION

University of Wisconsin-Madison Aug 2020 - now

Ph.D. in Computer Science

Advisor: [Ilias Diakonikolas](#)

University of Wisconsin-Madison Aug 2020 - May 2024

MSc in Computer Science

GPA: 4.0/4

Thesis: Statistical Query Lower Bounds for Learning Truncated Gaussians

Advisor: [Ilias Diakonikolas](#)

National Technical University of Athens Sep 2014 - Nov 2019

Diploma in Electrical and Computer Engineering

GPA: 9.64/10 (*4th out of 289*)

Thesis: Estimation of Graph Parameters from Noisy Samples and Queries

Advisor: Dimitris Fotakis

PUBLICATIONS*

*Author names are listed in alphabetical order

Robust Sparse Estimation for Gaussians with Optimal Error under Huber Contamination

Ilias Diakonikolas, Daniel M. Kane, Sushrut Karmalkar, Ankit Pensia, Thanasis Pittas

ICML 2024

Statistical Query Lower Bounds for Learning Truncated Gaussians

Ilias Diakonikolas, Daniel M. Kane, Thanasis Pittas, Nikos Zarifis

COLT 2024

Near-Optimal Algorithms for Gaussians with Huber Contamination: Mean Estimation and Linear Regression

Ilias Diakonikolas, Daniel M. Kane, Ankit Pensia, Thanasis Pittas

NeurIPS 2023

A Spectral Algorithm for List-Decodable Covariance Estimation in Relative Frobenius Norm

Ilias Diakonikolas, Daniel M. Kane, Jasper C.H. Lee, Ankit Pensia, Thanasis Pittas

NeurIPS 2023 (*Selected for Spotlight Presentation*)

SQ Lower Bounds for Learning Bounded Covariance GMMs

Ilias Diakonikolas, Daniel M. Kane, Thanasis Pittas, Nikos Zarifis

COLT 2023

Nearly-Linear Time and Streaming Algorithms for Outlier-Robust PCA

Ilias Diakonikolas, Daniel M. Kane, Ankit Pensia, Thanasis Pittas

ICML 2023

List-Decodable Sparse Mean Estimation via Difference-of-Pairs Filtering

Ilias Diakonikolas, Daniel M. Kane, Sushrut Karmalkar, Ankit Pensia, Thanasis Pittas

NeurIPS 2022 (*Selected for Oral Presentation*)

Robust Sparse Mean Estimation via Sum of Squares

Ilias Diakonikolas, Daniel M. Kane, Sushrut Karmalkar, Ankit Pensia, Thanasis Pittas
COLT 2022

Streaming Algorithms for High-Dimensional Robust Statistics

Ilias Diakonikolas, Daniel M. Kane, Ankit Pensia, Thanasis Pittas
ICML 2022

Statistical Query Lower Bounds for List-Decodable Linear Regression

Ilias Diakonikolas, Daniel M. Kane, Ankit Pensia, Thanasis Pittas, Alistair Stewart
NeurIPS 2021 (*Selected for Spotlight Presentation*)

The Optimality of Polynomial Regression for Agnostic Learning under Gaussian Marginals in the SQ Model

Ilias Diakonikolas, Daniel M. Kane, Thanasis Pittas, Nikos Zarifis
COLT 2021

Estimating the Number of Induced Subgraphs from Incomplete Data and Neighborhood Queries

Dimitris Fotakis, Thanasis Pittas, Stratis Skoulakis
AAAI 2021

PREPRINTS*

*Author names are listed in alphabetical order

Efficient Multivariate Robust Mean Estimation in Efron's Two-Groups Model

Ilias Diakonikolas, Giannis Iakovidis, Daniel M. Kane, Thanasis Pittas

2024

Batch List-Decodable Linear Regression via Higher Moments

Ilias Diakonikolas, Daniel M. Kane, Sushrut Karmalkar, Sihan Liu, Thanasis Pittas

2024

Clustering Mixtures of Bounded Covariance Distributions Under Optimal Separation

Ilias Diakonikolas, Daniel M. Kane, Jasper C. H. Lee, Thanasis Pittas

2023

AWARDS

Research Assistant Sponsorship by the Institute for Foundations of Data Science (IFDS)

Fall 2024

Student Research Grants Competition (SRGC) Award

Fall 2023

Research Assistant Sponsorship by the Institute for Foundations of Data Science (IFDS)

Fall 2023

Bodossaki Foundation Fellowship

2022 - now

Gerondelis Foundation Scholarship

2021

Research Assistant Sponsorship by the Institute for Foundations of Data Science (IFDS)

Summer 2021

UW-Madison CS Departmental Research Fellowship

2020 - 2021

TEACHING

Teaching Assistant at UW-Madison

CS400 (Programming III)

Spring 2024

CS540 (Introduction to Artificial Intelligence)

Spring 2022

Grader at UW-Madison

CS639 (Introduction to Computational Learning Theory)

Fall 2023

Teaching Assistant at NTUA

Discrete Mathematics

Spring 2019

Algorithms and Complexity

Fall 2019

Introduction to Computer Programming

Fall 2018

INVITED TALKS

Nearly-Linear Time and Streaming Algorithms for Outlier-Robust PCA

Institute for Operations Research and the Management Sciences (INFORMS)

October 2023

Near-Optimal Algorithms for Robust Statistics

Institute for Foundations of Data Science (IFDS)

November 2023

SERVICE

Conference Reviewer: NeurIPS 2024, ICALP 2024, NeurIPS 2023, ICLR 2023, NeurIPS 2022, ICML 2022

Journal Reviewer: SIAM Journal on Mathematics of Data Science (SIMODS)

TECHNICAL SKILLS

Programming Languages and Applications: Python, C, C++, Java, Mathematica, MATLAB