

Day 4: Wednesday, October 30, 2024

9:00 – 10:30am	Session 7A	Session 7B	Session 7C
	Boosting uniformity in quasirandom groups: faster and simpler Authors: E. Viola, H. Derksen, C. Lee	Improved Distance (Sensitivity) Oracles with Subquadratic Space Authors: D. Bilò, S. Chechik, K. Choudhary, S. Cohen, T. Friedrich, M. Schirneck	Replicability in High Dimensional Statistics Authors: M. Hopkins, R. Impagliazzo, D. Kane, S. Liu, C. Ye
	The sample complexity of smooth boosting and the tightness of the hardcore theorem Authors: G. Blanc, A. Hayderi, C. Koch, L. Tan	Sparse graph counting and Kelley–Meka bounds for binary systems Authors: Y. Filmus, H. Hatami, K. Hosseini, E. Kelman	Computing Approximate Centerpoints in Polynomial Time Authors: Y. Cherapanamjeri
	On the Existence of Seedless Condensers: Exploring the Terrain Authors: E. Chattopadhyay, M. Gurumukhani, N. Ringach	Towards Instance-Optimal Euclidean Spanners Authors: H. Le, S. Solomon, C. Than, C. T'oth, T. Zhang	Near-optimal Size Linear Sketches for Hypergraph Cut Sparsifiers Authors: S. Khanna, A. Putterman, M. Sudan
	Tight Bounds for the Zig-Zag Product Authors: G. Cohen, G. Maor, I. Cohen	Sensitivity, Proximity and FPT Algorithms for Exact Matroid Problems Authors: F. Eisenbrand, L. Rohwedder, K. Wegrzycki	Sensitivity Sampling for k-Means: Worst Case and Stability Optimal Coreset Bounds Authors: N. Bansal, V. Cohen-Addad, M. Prabhu, D. Saulpic, C. Schwiegelshohn
	Distinguishing, Predicting, and Certifying: On the Long Reach of Partial Notions of Pseudorandomness Authors: J. Li, E. Pyne, R. Tell	Computational hardness of detecting graph lifts and certifying lift-monotone properties of random regular graphs Authors: X. Yu, D. Kunisky	Novel properties of hierarchical probabilistic partitions and their algorithmic applications Authors: S. Banerjee, Y. Bartal, L. Gottlieb, A. Hovav
	Improved Condensers for Chor-Goldreich Sources Authors: J. Goodman, X. Li, D. Zuckerman	New Structures and Algorithms for Length-Constrained Expander Decompositions Authors: B. Haeupler, D Hershkowitz, Z. Tan	Spectral Guarantees for Adversarial Streaming PCA Authors: Z. Xun, E. Price
10:30 – 10:50am	Break		

10:50 – 12:05pm	Session 8A	Session 8B	Session 8C
	<p>A stronger bound for linear 3-LCC Authors: T. Yankovitz</p> <p style="text-align: center;"><i>and</i></p> <p>Exponential Lower Bounds for Smooth 3-LCCs and Sharp Bounds for Designs Authors: P. Kothari, P. Manohar</p>	<p>Gaussian Approximation of Convex Sets by Intersections of Halfspaces Authors: A. De, S. Nadimpalli, R. Servedio</p>	<p>Almost-Linear Time Algorithms for Incremental Graphs: Min-Cost Flow and More via Duality Authors: J. van den Brand, L. Chen, R. Kyng, Y. Liu, S. Meierhans, M. Gutenberg, S. Sachdeva</p>
	<p>Random Gabidulin Codes Achieve List Decoding Capacity in the Rank Metric Authors: Z. Guo, C. Xing, C. Yuan, Z. Zhang</p>	<p>Agnostically Learning Multi-index Models with Queries Authors: I. Diakonikolas, D. Kane, V. Kontonis, C. Tzamos, N. Zarifis</p>	<p>Dynamic Deterministic Constant-Approximate Distance Oracles with Worst-Case Update Time Authors: B. Haeupler, Y. Long, T. Saranurak</p>
	<p>Near-Tight Bounds for 3-Query Locally Correctable Binary Linear Codes via Rainbow Cycles Authors: O. Alrabiah, V. Guruswami</p>	<p>Exploration is Harder than Prediction: Cryptographically Separating Reinforcement Learning from Supervised Learning Authors: N. Golowich, A. Moitra, D. Rohatgi</p>	<p>Lempel-Ziv (LZ77) Factorization in Sublinear Time Authors: D. Kempa, T. Kociumaka</p>
	<p>An Improved Line-Point Low-Degree Test Authors: P. Harsha, M. Kumar, R. Saptharishi, M. Sudan</p>	<p>Revisiting Agnostic PAC Learning Authors: S. Hanneke, K. Larsen, N. Zhivotovskiy</p>	<p>Maximum Flow by Augmenting Paths in Time Authors: A. Bernstein, J. Blikstad, T. Saranurak, T. Tu</p>
	<p>Fast decision tree learning solves hard coding-theoretic problems Authors: C. Koch, C. Strassle, L. Tan</p>	<p>Ramsey Theorems for Trees and a General ‘Private Learning Implies Online Learning’ Theorem Authors: S. Fioravanti, S. Hanneke, S. Moran, H. Scheffler, I. Tsubari</p>	<p>Near-Optimal $(1+\epsilon)$-Approximate Fully-Dynamic All-Pairs Shortest Paths in Planar Graphs Authors: A. Filtser, G. Goranci, N. Patel, M. Gutenberg</p>
12:05 – 1:30pm	Conference Lunch		
1:30pm – 2:20pm	Session 9: Best Papers		

Universal Optimality of Dijkstra via Beyond-Worst-Case Heaps
Authors: B. Haeupler, R. Hladik, V. Rozhon, R. Tarjan, J. Tětek

Near-Optimal Deterministic Network Decomposition and Ruling Set, and Improved MIS
Authors: M. Ghaffari, C. Grunau

**2:20 –
2:45**

Break

**2:45 –
4:15pm**

Session 10A

Session 10B

Session 10C

Verifying Groups in Linear Time
 Authors: O. Klein, I. Komargodski, S. Evra, S. Gadot

Nearly Optimal List Labeling
 Authors: M. Bender, A. Conway, M. Farach-Colton, H. Komlos, M. Koucky, W. Kuszmaul, M. Saks

The ESPRIT algorithm under high noise: Optimal error scaling and noisy super-resolution
 Authors: Z. Ding, E. Epperly, L. Lin, R. Zhang

Power Series Composition in Near-Linear Time
 Authors: Y. Kinoshita, B. Li

Stochastic Online Correlated Selection
 Authors: Z. Chen, Z. Huang, E. Sun

Constant-Depth Arithmetic Circuits for Linear Algebra Problems
 Authors: R. Andrews, A. Wigderson

Faster $(\Delta+1)$ -Edge Coloring: Breaking the Time Barrier
 Authors: S. Bhattacharya, D. Carmon, M. Costa, S. Solomon, T. Zhang

Directed Isoperimetry and Monotonicity Testing: A Dynamical Approach
 Authors: R. Pinto Jr.

Gradient descent for unbounded convex functions on Hadamard manifolds and its applications to scaling problems
 Authors: H. Hirai, K. Sakabe

An Improved Pseudopolynomial Time Algorithm for Subset Sum
 Authors: L. Chen, J. Lian, Y. Mao, G. Zhang

Efficient and Near-Optimal Noise Generation for Streaming Differential Privacy
 Authors: K. Dvijotham, H. McMahan, K. Pillutla, T. Steinke, A. Thakurta

On the Complexity of Avoiding Heavy Elements
 Authors: Z. Lu, I. Oliveira, H. Ren, R. Santhanam

Naively Sorting Evolving Data is Optimal and Robust
 Authors: G. Giakkoupis, M. Kiwi, D. Los

A Strong Separation for Adversarially Robust Estimation for Linear Sketches
 Authors: E. Gribelyuk, H. Lin, D. Woodruff, H. Yu, S. Zhou

Gradient Descent is Pareto-Optimal in the Oracle Complexity and Memory Tradeoff for Feasibility Problems
 Authors: M. Blanchard

Tight Bounds for Sorting Under Partial Information
 Authors: I. van der Hoog, D. Rutschmann