

August 28, 2024 Wednesday

8:45-9:20	Coffee and pastries			
9:20-9:30	Opening remarks			
9:30-10:30	<i>RANDOM (Wolfson Theatre) - Noga Ron-Zewi; APPROX (Alumni Theatre) - Amit Kumar</i>			
9:30-10:30	Session A1			
	RANDOM - Pseudorandomness, Chair: Zeyu Guo		APPROX, Chair: Thomas Erlebach	
9:30-9:50	Explicit and near-optimal construction of t-rankwise independent permutations	<i>Nicholas Harvey and Arvin Sahami</i>	Approximation Algorithms for Correlated Knapsack Orienteering	<i>David Aleman Espinosa and Chaitanya Swamy</i>
9:50-10:10	The expander hitting property when the sets are arbitrarily unbalanced	<i>Ron Zadecario and Amnon Ta-Shma</i>	An EPTAS for Cardinality Constrained Multiple Knapsack via Iterative Randomized Rounding	<i>Ilan Doron, Ariel Kulik and Hadas Shachnai</i>
10:10-10:30	Randomness Extractors in AC0 and NC1: Optimal up to Constant Factors	<i>Kuan Cheng and Ruiyang Wu</i>	A $(3/2+1/e)$ -Approximation Algorithm for Ordered TSP	<i>Susanne Armbruster, Matthias Mnich and Martin Nägele</i>
10:30-11:00	Coffee			
11:00-12:00	Session A2			
	RANDOM - Algebraic Complexity, Chair: Ronald de Wolf		[Alumni Theatre] RANDOM - Streaming, Chair: Tugkan Batu	
11:00-11:20	Hilbert Functions and Low-Degree Randomness Extractors	<i>Alexander Golovnev, Zeyu Guo, Pooya Hatami, Satyajeet Nagargoje and Chao Yan</i>	Additive Noise Mechanisms for Making Randomized Approximation Algorithms Differentially Private	Jakub Tetek
11:20-11:40	Optimal Pseudorandom Generators for Low-Degree Polynomials Over Moderately Large Fields	<i>Ashish Dwivedi, Zeyu Guo and Ben Lee Volk</i>	Private Counting of Distinct Elements in the Turnstile Model and Extensions	<i>Monika Henzinger, A. R. Sricharan and Teresa Anna Steiner</i>
11:40-12:00	Matrix Multiplication Reductions	Ashish Gola, Igor Shinkar and Harsimran Singh	Trace reconstruction from local statistical queries	<i>Xi Chen, Anindya De, Chin Ho Lee and Rocco Servedio</i>
12:00-14:00	Lunch			
14:00-15:00	Plenary Talk - RANDOM (Wolfson Theatre), Chair: Noga Ron-Zewi			
14:00-15:00	Modern Mixing, Spatial and Temporal		<i>Mark Jerrum, Queen Mary University of London</i>	
15:00-15:30	Coffee			

15:30-16:30	Session A3			
	RANDOM - Sampling and Approximate Counting, Chair: Gregory Sorkin		APPROX, Chair: Amit Kumar	
15:30-15:50	The number of random 2-SAT solutions is asymptotically log-normal	<i>Arnab Chatterjee, Amin Coja-Oghlan, Noela Müller, Connor Riddlesden, Maurice Rolvien, Pavel Zakharov and Haodong Zhu</i>	Speed-robust scheduling revisited	<i>Josef Minařík and Jiří Sgall</i>
15:50-16:10	Rapid mixing of the down-up walk on matchings of a fixed size	Vishesh Jain and Clayton Mizgerd	Improved online load balancing with known makespan	<i>Martin Böhm, Matej Lieskovský, Sören Schmitt, Jiří Sgall and Rob van Stee.</i>
16:10-16:30	Near-linear time samplers for matroid independent sets with applications	<i>Xiaoyu Chen, Heng Guo, Xinyuan Zhang and Zongrui Zou</i>	Scheduling Splittable Jobs on Configurable Machines	<i>David Stalfa, Rajmohan Rajaraman, Matthew Casey and Cheng Tan</i>
16:30-16:50	Break			
16:50-17:50	Session A4			
	RANDOM - Complexity 1, Chair: Noga Ron-Zewi		APPROX, Chair: Ahmad Abdi	
16:50-17:10	Parallel Repetition of k -Player Projection Games	<i>Amey Bhangale, Mark Braverman, Subhash Khot, Yang Liu and Dor Minzer</i>	A logarithmic approximation of linearly-ordered colourings	<i>Johan Hästad, Björn Martinsson, Tamio-Vesa Nakajima and Stanislav Živný</i>
17:10-17:30	Approximate Degree Composition for Recursive Functions	<i>Sourav Chakraborty, Chandrima Kayal, Rajat Mittal, Manaswi Paraashar and Nitin Saurabh</i>	On the NP-hardness approximation curve for Max-2Lin(2)	<i>Björn Martinsson</i>
17:30-17:50	On the communication complexity of finding a king in a tournament	<i>Nikhil Mande, Manaswi Paraashar, Swagato Sanyal and Nitin Saurabh</i>	More basis reduction for linear codes: backward reduction, BKZ, slide reduction, and more	<i>Surendra Ghentiyala and Noah Stephens-Davidowitz</i>
18:00-20:00	Reception			
August 29, 2024 Thursday				
8:45-9:10	Coffee and pastries			
9:10-10:30	Session B1			
	RANDOM - Property Testing, Chair: Ronald de Wolf		APPROX, Chair: Sharat Ibrahimpur	
9:10-9:30	Nearly Optimal Bounds for Sample-Based Testing and Learning of k -Monotone Functions	Hadley Black	Degrees and Network Design: New Problems and 2 Approximations	<i>Michael Dinitz, Guy Kortsarz and Shi Li</i>
9:30-9:50	Testing Intersectingness of Uniform Families	<i>Ishay Haviv and Michal Parnas</i>	On the Generalized Mean Densest Subgraph Problem: Complexity and Algorithms	<i>Karthekeyan Chandrasekaran, Chandra Chekuri, Manuel Torres and Weihao Zhu</i>
9:50-10:10	Stochastic Distance in Property Testing	<i>Uri Meir, Gregory Schwartzman and Yuichi Yoshida</i>	A Constant Factor Approximation for Directed Feedback Vertex Set in Graphs of Bounded Genus	<i>Hao Sun</i>
10:10-10:30	Nearly Optimal Local Algorithms for Constructing Sparse Spanners of Clusterable Graphs	Reut Levi, Moti Medina and Omer Tubul	Learning-augmented Maximum Independent Set	<i>Vladimir Braverman, Prathamesh Dharangutte, Vihan Shah and Chen Wang</i>
10:30-11:00	Coffee			

11:00-12:20	Session B2			
	RANDOM - Error-correcting Codes, Chair: Noga Ron-Zewi		APPROX, Chair: Neil Olver	
11:00-11:20	When can an expander code correct $\Omega(n)$ errors in $O(n)$ time?	<i>Kuan Cheng, Minghui Ouyang, Chong Shangguan and Yuanting Shen</i>	Competitive Query Minimization for Stable Matching with One-Sided Uncertainty	<i>Evrpidis Bampis, Konstantinos Dogeas, Thomas Erlebach, Nicole Megow, Jens Schölter and Amitabh Trehan</i>
11:20-11:40	When Do Low-Rate Concatenated Codes Approach The Gilbert--Varshamov Bound?	<i>Dean Doron, Jonathan Mosheiff and Mary Wootters</i>	Weighted matching in the random-order streaming and robust communication models	<i>Diba Hashemi and Weronika Wrzos-Kaminska</i>
11:40-12:00	Interactive Coding with Unbounded Noise	<i>Eden Fargion, Ran Gelles and Meghal Gupta</i>	Hybrid k-Clustering: Blending k-Median and k-Center	<i>Fedor V. Fomin, Petr A. Golovach, Tanmay Inamdar, Saket Saurabh and Meirav Zehavi</i>
12:00-12:20	Capacity-Achieving Gray Codes	<i>Venkatesan Guruswami and Hsin-Po Wang</i>	Online k-Median with Consistent Clusters	<i>Benjamin Moseley, Heather Newman and Kirk Pruhs</i>
12:20-14:00	Lunch			
14:00-15:00	Luca Trevisan Memorial Session (Wolfson Theatre) Chair: Dieter van Melkebeek			
	Some of Luca Trevisan's Contributions to:	Streaming Algorithms	<i>Jelani Nelson, UC Berkeley</i>	
		Graph Partitioning	<i>Anupam Gupta, NYU</i>	
		Pseudorandomness	<i>Rocco Servedio, Columbia University</i>	
		Randomness Extraction	<i>Dieter van Melkebeek, University of Wisconsin-Madison</i>	
15:00-15:30	Coffee			
15:30-16:30	Session B3			
	RANDOM - Random Graphs, Chair: Jozef Skokan		APPROX, Chair: Thomas Erlebach	
15:30-15:50	Ramsey properties of randomly perturbed hypergraphs	<i>Elad Aigner-Horev, Dan Hefetz and Mathias Schacht</i>	Bipartizing (Pseudo-)Disk Graphs: Approximation with a Ratio Better than 3	<i>Daniel Lokshantov, Fahad Panolan, Saket Saurabh, Jie Xue and Meirav Zehavi</i>
15:50-16:10	Upper bounds on the 2-colorability threshold of random d-regular k-uniform hypergraphs for $k \geq 3$	<i>Evan Chang, Neel Kolhe and Youngtak Sohn</i>	Rectangle Tiling Binary Arrays	<i>Pratik Ghosal, Syed Mohammad Meesum and Katarzyna Paluch</i>
16:10-16:30	Improved bounds for polylogarithmic graph distances in scale-free percolation and related models	<i>Kostas Lakis, Johannes Lengler, Kalina Petrova and Leon Schiller</i>	Improved Streaming Algorithm for the Klee's Measure Problem and Generalizations	<i>Sourav Chakraborty, Arijit Ghosh, Kuldeep S. Meel, Mridul Nandi, Soumit Pal and N. V. Vinodchandran</i>
16:30-16:50	Break			
16:50-17:50	Session B4			
	RANDOM - Expansion, Chair: Noga Ron-Zewi		[Alumni Theatre] RANDOM - Learning, Chair: Ronald de Wolf	
16:50-17:10	On Houdre-Tetali Conjecture for Isoperimetric Constant of Graphs	<i>Lap Chi Lau and Dante Tjowasi</i>	Faster Algorithms for Schatten-p Low Rank Approximation	<i>Praneeth Kacham and David P. Woodruff</i>
17:10-17:30	Coboundary and cosystolic expansion without dependence on dimension or degree	<i>Yotam Dikstein and Irit Dinur</i>	Approximating the Number of Relevant Variables in a Parity Implies Proper Learning	<i>Nader Bshouty and George Haddad</i>
17:30-17:50	Expanderizing Higher Order Random Walks	<i>Vedat Levi Alev and Shravas Rao</i>	On the amortized complexity of approximate counting	<i>Ishaq Aden-Ali, Yanjun Han, Jelani Nelson and Huacheng Yu</i>
17:50-18:10	Sparse High Dimensional Expanders via Local Lifts	<i>Gal Maor, Yotam Dikstein and Inbar Ben Yaacov</i>	Matrix Multiplication Verification Using Coding Theory	<i>Huck Bennett, Karthik Gajulapalli, Alexander Golovnev and Evelyn Warton</i>

August 30, 2024 Friday

8:45-9:10	Coffee and pastries		
9:10-10:30	Session C1		
	RANDOM - Distribution Testing, Chair: Tugkan Batu	APPROX, Chair: Neil Olver	
9:10-9:30	Support Testing in the Huge Object Model <i>Tomer Adar, Eldar Fischer and Amit Levi</i>	Universal Optimization for Non-Clairvoyant Subadditive Joint Replenishment	<i>Tomer Ezra, Stefano Leonardi, Michal Pawlowski, Matteo Russo and Seeun William Umboh</i>
9:30-9:50	Refining the Adaptivity Notion in the Huge Object Model <i>Tomer Adar and Eldar Fischer</i>	The Average-Value Allocation Problem	<i>Kshipra Bhawalkar, Zhe Feng, Anupam Gupta, Aranyak Mehta, David Wajc and Di Wang</i>
9:50-10:10	Public Coin Interactive Proofs for Label-Invariant Distribution Properties <i>Tal Herman</i>	Distributional Online Weighted Paging with Limited Horizon	<i>Joseph Naor, Yaron Fairstein and Tomer Tsachor</i>
10:10-10:30	Improved Bounds for High-Dimensional Equivalence and Product Testing using Subcube Queries <i>Tomer Adar, Eldar Fischer and Amit Levi</i>	The Telephone k-multicast problem	<i>Daniel Hathcock, Guy Kortsarz and R. Ravi</i>
10:30-11:00	Coffee		
11:00-12:00	Plenary Talk - APPROX (Wolfson Theatre), Chair: Amit Kumar		
	Going Beyond the Worst Case in Approximation/Online Algorithms	<i>Anupam Gupta, NYU</i>	
12:00-13:30	Lunch		
13:30-14:30	Session C2		
	RANDOM - Dynamical Systems, Chair: Mark Jerrum	APPROX, Chair: Sharat Ibrahimpur	
13:30-13:50	Fast and Slow Mixing of the Kawasaki Dynamics on Bounded-Degree Graphs <i>Aiya Kuchukova, Marcus Pappik, Will Perkins and Corrine Yap</i>	Scheduling on a Stochastic Number of Machines	<i>Moritz Buchem, Franziska Eberle, Hugo Kooki Kasuya Rosado, Kevin Schewior and Andreas Wiese</i>
13:50-14:10	On Sampling from Ising Models with Spectral Constraints <i>Andreas Galanis, Alkis Kalavasis and Anthimos-Vardis Kandiros</i>	On Instance-Optimal Algorithms for a Generalization of Nuts and Bolts and Generalized Sorting	<i>Mayank Goswami and Riko Jacob</i>
14:10-14:30	Parallelising Glauber dynamics <i>Holden Lee</i>	Online Time-Windows TSP with Predictions	<i>Dimitris Christou and Shuchi Chawla</i>
14:30-15:00	Coffee		
15:00-16:00	Session C3		
	RANDOM - Complexity 2, Chair: Ronald de Wolf	APPROX, Chair: Tugkan Batu	
15:00-15:20	Towards Simpler Sorting Networks and Monotone Circuits for Majority <i>Natalia Dobrokhotova-Maikova, Alexander Kozachinskiy and Vladimir Podolskii Podolskii</i>	Maximum Unique Coverage on Streams: Improved FPT Approximation Scheme and Tighter Space Lower Bound	<i>Philip Cervenjak, Junhao Gan, Seeun William Umboh and Anthony Wirth</i>
15:20-15:40	On Black-Box Meta Complexity and Function Inversion <i>Noam Mazon and Rafael Pass</i>	Greedy heuristics and linear relaxations for the random hitting set problem	<i>Gabriel Arpino, Daniil Dmitriev and Nicolò Grometto</i>
15:40-16:00	Consequences of Randomized Reductions from SAT to Time-Bounded Kolmogorov Complexity <i>Halley Goldberg and Valentine Kabanets</i>	Asynchronous Majority Dynamics on Binomial Random Graphs	<i>Divyarthi Mohan and Pawel Pralat</i>