Wednesday, August 21

An optimal lower bound for monotonicity testing over hypergrids
Deeparnab Chakrabarty and C. Seshadhri

Testing Membership in Counter Automaton Languages
Yonatan Goldhirsh and Michael Viderman

Tight lower bounds for testing linear isomorphism
Elena Grigorescu, Karl Wimmer and Ning Xie

Local reconstructors and tolerant testers for connectivity and diameter
Andrea Campagna, Alan Guo and Ronitt Rubinfeld

10:13-10:30 Break

10:30-11:30 Invited talk: Luca Trevisan

11:30-12:14 RANDOM (Differential privacy)

Fast Private Data Release Algorithms for Sparse Queries
Avrim Blum and Aaron Roth

Private Learning and Sanitization: Pure vs. Approximate Differential Privacy
Amos Beimel, Kobbi Nissim and Uri Stemmer

12:14- 1:45 Lunch

1:45- 3:13 APPROX

Online Non-clairvoyant Scheduling to Simultaneously Minimize All Convex Functions
Kyle Fox, Sungjin Im, Janardhan Kulkarni and Benjamin Moseley

The Online Stochastic Generalized Assignment Problem
Saeed Alaei, Mohammadtaghi Hajiaghayi and Vahid Liaghat

Online Multidimensional Load Balancing
Adam Meyerson, Alan Roytman and Brian Tagiku

Shrinking Maxima, Decreasing Costs: New Online Packing and Covering Problems
Pierre Fraigniaud, Magnus M. Halldorsson, Boaz Patt-Shamir, Dror Rawitz and Adi Rosen

3:13- 3:30 Break

3:30- 4:36 RANDOM (Streaming, sampling and population recovery)

A Tight Lower Bound for High Frequency Moment Estimation with Small Error
Yi Li and David Woodruff

What you can do with Coordinated Samples
Edith Cohen and Haim Kaplan

Finding Heavy Hitters from Partial or Noisy Data
Lucia Batman, Russell Impagliazzo, Cody Murray and Ramamohan Paturi

4:36- 4:55 Break

4:55- 6:01 APPROX

On the total perimeter of homothetic convex bodies in a convex container
Adrian Dumitrescu and Csaba Toth

A pseudo-approximation for the genus of Hamiltonian graphs
Yury Makarychev, Amir Nayyeri and Anastasios Sidiropoulos

Interdiction Problems on Planar Graphs
Feng Pan and Aaron Schild

6:30-8:00 Reception

Thursday, August 22

8:45-10:13 APPROX

Multiple Traveling Salesmen in Asymmetric Metrics
Zachary Friggstad

Approximation Algorithms for Movement Repairmen
Mohammadtaghi Hajiaghayi, Rohit Khandekar, Reza Khani and Guy Kortsarz

The Approximability of the Binary Paintshop Problem
Anupam Gupta, Satyen Kale, Viswanath Nagarajan, Rishi Saket and Baruch Schieber

Capacitated Network Design on Undirected Graphs
Deeparnab Chakrabarty, Ravishankar Krishnaswamy, Shi Li and Srivatsan Narayanan

10:13-10:30 Break

10:30-11:30 Invited talk

High-dimensional Sampling Algorithms
Santosh Vempala

11:30-12:14 APPROX

Improved Hardness of Approximating Chromatic Number
Sangxia Huang

On the NP-Hardness of Approximating Ordering Constraint Satisfaction Problems
Per Austrin, Rajsekar Manokaran and Cenny Wenner

12:14- 1:45 Lunch
1:45- 3:13 RANDOM (Random structures)

The Power of Choice for Random Satisfiability
Varsha Dani, Josep Diaz, Thomas Hayes and Cristopher Moore

On the average sensitivity and density of k-CNF formulas
Dominik Scheder and Li-Yang Tan

Conditional Random Fields, Planted Constraint Satisfaction and Entropy Concentration
Emmanuel Abbe and Andrea Montanari

Connectivity of Random High Dimensional Geometric Graphs
Roee David and Uriel Feige

3:13- 3:30 Break

3:30- 4:36 APPROX

Approximate Indexability and Bandit Problems with Concave Rewards and Delayed Feedback
Sudipto Guha and Kamesh Munagala

Scheduling Subset Tests: One-time, Continuous, and How They Relate
Edith Cohen, Haim Kaplan and Yishay Mansour

Online Square-into-Square Packing
Sandor Fekete and Hella-Franziska Hoffmann

4:36- 4:55 Break

4:55- 6:01 RANDOM (Multi-spin systems and the hard-core model)

Improved FPTAS for Multi-Spin Systems
Pinyan Lu and Yitong Yin

Improved Bounds on the Phase Transition for the Hard-Core Model in 2-Dimensions
Juan Vera, Eric Vigoda and Linji Yang

Phase Coexistence and Slow Mixing for the Hard-Core Model on Z^2
Antonio Blanca, David Galvin, Dana Randall and Prasad Tetali

Friday, August 23

8:45-10:13 RANDOM 4 (Error-Correcting Codes)

Absolutely Sound Testing of Lifted Codes
Noga Ron-Zewi, Elad Haramaty and Madhu Sudan

Zero Knowledge LTCs and Their Applications
Yuval Ishai, Amit Sahai, Michael Viderman and Mor Weiss

Matching-Vector Families and LDCs Over Large Modulo
Zeev Dvir and Guangda Hu

Combinatorial limitations of average-radius list decoding
Venkatesan Guruswami and Srivatsan Narayanan

10:13-10:30 Break

10:30-11:30 Invited talk

Connections between probability and algorithms
Persi Diaconis

11:30-12:14 RANDOM (Randomness expansion and derandomization)

Robust Randomness Amplifiers: Upper and Lower Bounds
Matthew Coudron, Thomas Vidick and Henry Yuen

Randomness-Efficient Curve Samplers
Zeyu Guo

12:14- 1:45 Lunch

Sketching Earth-Mover Distance on Graph Metrics
Andrew McGregor and Daniel Stubbs

Spectral Sparsification in Dynamic Graph Streams
Kook Jin Ahn, Sudipto Guha and Andrew McGregor

Generalizing the Layering Method of Indyk and Woodruff: Recursive Sketches for Frequency-Based Vectors on Streams
and
Approximating Large Frequency Moments with Pick-and-Drop Sampling
Vladimir Braverman and Rafail Ostrovsky

A local computation approximation scheme to maximum matching
Yishay Mansour and Shai Vardi

Small-Bias Sets for Nonabelian Groups: Derandomizing the Alon-Roichman Theorem
Sixia Chen, Cristopher Moore and Alexander Russell

Explicit Noether Normalization for Simultaneous Conjugation via Polynomial Identity Testing
Michael A. Forbes and Amir Shpilka

Pseudorandomness for Regular Branching Programs via Fourier Analysis
Omer Reingold, Thomas Steinke and Salil Vadhan

A New Regularity Lemma and Faster Approximation Algorithms for Low Threshold Rank Graphs
Shayan Oveis Gharan and Luca Trevisan

Partial Interval Set Cover Trade-offs Between Scalability and Optimality
Katherine Edwards, William Kennedy and Simon Griffiths