SODA08 – Papers Accepted for Presentation

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Weak epsilon-nets and interval chains
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Optimal Universal Graphs with Deterministic Embedding
Noga Alon and Michael Capalbo

The Hiring Problem and Lake Wobegon Strategies
Andrei Broder and Adam Kirsch and Ravi Kumar and Michael Mitzenmacher and Eli Upfal and Sergei Vassilvitskii

Recognizing Partial Cubes in Quadratic Time
David Eppstein

Efficient reductions among lattice problems
Daniele Micciancio

Maximum overhang
Mike Paterson and Yuval Peres and Mikkel Thorup and Peter Winkler and Uri Zwick

Earth-Mover Distance over High Dimensional Spaces
Alexandr Andoni and Piotr Indyk and Robert Krauthgamer

Graph Balancing: A Special Case of Scheduling Unrelated Parallel Machines
Tomas Ebenlendr and Marek Krcal and Jiri Sgall

Incentive Compatible Regression Learning
Ofer Dekel and Felix Fischer and Ariel D. Procaccia

Metric Clustering via Consistent Labeling
Robert Krauthgamer and Tim Roughgarden

Nondecreasing paths in a weighted graph, or: How to optimally read a train schedule
Virginia Vassilevska

Cutting Cycles of Rods in Space: Hardness Results and Approximation Algorithms
Boris Aronov and Mark de Berg and Chris Gray and Elena Mumford

Iterated Rounding Algorithms for the Smallest k-Edge Connected Spanning Subgraph
Harold Gabow and Suzanne Gallagher

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Amihood Amir and Igor Nor

Algorithms for the Coalitional Manipulation Problem
Michael Zuckerman and Ariel D. Procaccia and Jeffrey S. Rosenschein

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Fully Polynomial Time Approximation Schemes for Stochastic Dynamic Programs
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Price Based Protocols For Fair Resource Allocation: Convergence Time Analysis and Extension to Leontief Utilities
Ashish Goel and Hamid Nazerzadeh

The Effect of Induced Subgraphs on Quasi-Randomness
Asaf Shapira and Raphael Yuster

Holographic Algorithms With Unsymmetric Signatures
Jin-Yi Cai and Pinyan Lu

Strongly Polynomial and Fully Combinatorial Algorithms for Bisubmodular Function Minimization
S. Thomas McCormick and Satoru Fujishige

Better bounds for online load balancing on unrelated machines
Ioannis Caragiannis

Estimators and Tail Bounds for Dimension Reduction in l_α $(0<\alpha\leq 2)$ Using Stable Random Projections
Ping Li

Reconstructing Phylogenetic Trees with Very Short Branches
Ilan Gronau and Shlomo Moran and Sagi Snir

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Assaf Naor

Concatenated codes can achieve list-decoding capacity
Venkatesan Guruswami and Atri Rudra

On the Connectivity of Dynamic Random Geometric Graphs
Josep Diaz and Dieter Mitsche and Xavier Perez

Universality of random graphs
Domingos Dellamonica Jr. AND Yoshiharu Kohayakawa AND Vojtech Rodl AND Andrzej Rucinski

Greedy Drawings of Triangulations
Raghavan Dhandapani

Approximation Algorithms for Labeling Hierarchical Taxonomies
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Fast approximation of the permanent for very dense problems.
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Geodesic Delaunay Triangulations and Witness Complexes in the Plane
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Broadcast Scheduling: Algorithms and Complexity

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Klim Efremenko and Ely Porat

Computing Large Matchings Fast
Ignaz Rutter and Alexander Wolff

Empty-Ellipse Graphs
Olivier Devillers and Jeff Erickson and Xavier Goaoc

Space-Efficient Dynamic Orthogonal Point Location, Segment Intersection, and Range Reporting
Guy E. Blelloch

L(2,1)-labelling of graphs
Frederic Havet and Bruce Reed and Jean-Sebastien Sereni

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SPREAD: An Adaptive Scheme for Redundant and Fair Allocations in Dynamic Heterogeneous Storage Systems
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Fast dimension reduction using rademacher series on dual BCH codes
Nir Ailon and Edo Liberty

A Near-Linear Time Algorithm for Computing Replacement Paths in Planar Directed Graphs
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On stars and Steiner stars

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Minimum weight convex Steiner partitions
Adrian Dumitrescu and Csaba D. Toth

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Arc-disjoint in-trees in directed graph
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Improved Distance Sensitivity Oracles Via Random Sampling
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Linked Decompositions of Networks and the Power of Choice in Polya Urns
Henry Lin and Christos Amanatidis and Martha Sideri and Richard M. Karp and Christos H. Papadimitriou

A Nearly Linear Time Algorithm For The Half Integral Disjoint Paths
Ken-ichi Kawarabayashi and Bruce Reed

Deterministic Random Walks on Regular Trees
Joshua Cooper and Benjamin Doerr and Tobias Friedrich and Joel Spencer

Fast Asynchronous Byzantine Agreement and Leader Election with Full Information
Bruce Kapron and David Kempe and Valerie King and Jared Saia and Vishal Sanwalani

Analysis of Greedy Approximations with Nonsubmodular Potential Functions
Ding-Zhu Du and Ronald L. Graham and Panos M. Pardalos and Peng-Jun Wan and Weili Wu and Wenbo Zhao

Improved Algorithms for Orienteering and Related Problems
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Competitive Queue Management for Latency Sensitive Packets
Amos Fiat and Yishay Mansour and Uri Nadav

Exact and Efficient 2D-Arrangements of Arbitrary Algebraic Curves
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Online Assignment in a distributional model with applications to Adwords Allocations
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A Tight Lower Bound for Parity in Noisy Communication Networks
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Unconditionally Reliable Message Transmission in Directed Networks
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Approximating Geometric Coverage Problems
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Why Simple Hash Functions Work: Exploiting the Entropy in a Data Stream
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Catalan Structures and Dynamic Programming in H-minor-free graphs
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Maintaining Deforming Surface Meshes
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On Distance to Monotonicity and Longest Increasing Subsequence of a Data Stream
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Online Make-to-Order Joint Replenishment Model: Primal Dual Competitive Algorithms
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Approximating Connected Facility Location Problems via Random Facility Sampling and Core Detouring
Friedrich Eisenbrand and Fabrizio Grandoni and Thomas Rothvoss and Guido Schaefer

Finding one tight cycle
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Succinct Approximate Convex Pareto Curves
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Adaptive Local Ratio
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Algorithms for Distributed, Functional Monitoring
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Fully Dynamic Algorithm for Graph Spanners with Poly-logarithmic update time.
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Non-Clairvoyant Scheduling with Precedence Constraints
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(Almost) Optimal Coordination Mechanisms for Unrelated Machine Scheduling
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Distributed broadcase in unknown radio networks
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Kenneth L. Clarkson

Stochastic Analyses for Online Combinatorial Optimization Problems
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Almost Euclidean subspaces of ℓ_1^N via expander codes
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On Distributing Symmetric Streaming Computations
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Ranged Hash Functions and the Price of Churn
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On the Approximability of Influence in Social Networks
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An algorithm for improving graph partitions
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Minimizing average latency in oblivious routing
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Noisy sorting without resampling
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