

IEEE Conference on Computational Complexity

Paris, 2009

Wednesday 15/7

8:45-9:30	Registration
9.30-12.30	Chair: Johan Haastad
9.30-10.00	Poly-logarithmic independence fools AC ⁰ circuits Mark Braverman
10.00-10.30	k-Subgraph Isomorphism on AC ₀ Circuits Kazuyuki Amano
10.30-11.00	Break
11.00-11.30	Fixed-Polynomial Size Circuit Bounds Lance Fortnow, Rahul Santhanam, Ryan Williams
11.30-12.00	A new characterization of ACC ⁰ and probabilistic SCC ⁰ . Kristoffer Arnsfelt Hansen, Michal Koucký
12.00-12.30	A Superpolynomial Lower Bound on the Size of Uniform Non-constant-depth Threshold Circuits for the Permanent Pascal Koiran, Sylvain Perifel
12.30-14.30	Lunch
14.30-17.30	Chair: Ryan O'Donnell
14.30-15.00	The Proof Complexity of Polynomial Identities Pavel Hrubes, Iddo Zameret
15.00-15.30	Locally Testable Codes Require Redundant Testers Eli Ben-Sasson, Venkatesan Guruswami, Tali Kaufman, Madhu Sudan, Michael Viderman
15.30-16.00	Break
16.00-16.30	Every Permutation CSP of arity 3 is Approximation Resistant Moses Charikar, Venkatesan Guruswami, Rajsekar Manokaran
16.30-17.00	Inapproximability of Vertex Cover and Independent Set in Bounded Degree Graphs Per Austrin, Subhash Khot, Muli Safra
17.00-17.30	Are PCPs Inherent in Efficient Arguments Guy Rothblum, Salil Vadhan

Thursday 16/7

09.00-12.00	Chair: Harry Buhrman
9.00-9.30	Extractors for Low-Weight Affine Sources Anup Rao
9.30-10.00	Extractors for varieties Zeev Dvir
10.00-10.30	Break
10.30-11.00	Weak derandomization of weak algorithms: explicit versions of Yao's lemma Ronen Shaltiel
11.00-11.30	Regularity, Boosting, and Efficiently Simulating Every High-Entropy Distribution Luca Trevisan, Madhur Tulsiani, Salil Vadhan
11.30-12.00	An Almost Optimal Rank Bound for Depth-3 Identities Nitin Saxena, C. Seshadri
12.00-14.00	Lunch
14.00-17.30	Chair: Anna Gal
14.00-14.30	Lipschitz continuous ordinary differential equations are polynomial- space complete Akitoshi Kawamura
14.30-15.00	Improved Approximation of Linear Threshold Functions Ilias Diakonikolas, Rocco A. Servedio
15.00-15.30	On the degree of Boolean functions in different characteristics. Parikshit Gopalan, Shachar Lovett, Amir Shpilka
15.30-16.00	Break

- 16.00-16.30 The complexity of the annihilating polynomial
Neeraj Kayal
- 16.30-17.00 One-Way Functions and the Isomorphism Conjecture
Manindra Agrawal, Osamu Watanabe
- 17.00-17.30 Planar Graph Isomorphism is in Log-Space
Samir Datta, Nutan Limaye, Prajakta Nimbhorkar, Thomas Thierauf, Fabian Wagner

20.00	Conference dinner at Macéo
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Friday 17/7

9.00-12.00	Chair: Oded Regev
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- 9.00-9.30 Oracularization and Two-Prover One-Round Interactive Proofs against Nonlocal Strategies
Tsuyoshi Ito, Hirotada Kobayashi, Keiji Matsumoto
- 09.30-10.00 Quantum Copy-Protection and Quantum Money
Scott Aaronson

10.00-10.30	Break
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- 10.30-11.00 Parallel approximation of non-interactive zero-sum quantum games
Rahul Jain, John Watrous
- 11.00-11.30 Lower bounds on quantum multiparty communication complexity
Troy Lee, Gideon Schechtman, Adi Shraibman
- 11.30-12.00 Increasing the gap between Descriptive Complexity and Algorithmic Probability
Adam R. Day

12.00-14.00	Lunch
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14.00-17.30	Chair: Matthias Krause
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- 14.00-14.30 Reconstruction of Generalized Depth-3 Arithmetic Circuits with Bounded Top Fan-in
Zohar S. Karnin, Amir Shpilka
- 14.30-15.00 Multitask Efficiencies in the Decision Tree Model
Andrew Drucker

15.00-15.30	Break
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- 15.30-16.00 Worst-Case Running Times for Average-Case Algorithms
Luis Antunes, Lance Fortnow
- 16.00-16.30 On basing $ZK \neq BPP$ on the hardness of PAC learning
David Xiao
- 16.30-17.00 Infinite vs. Finite Space-Bounded Randomized Computations
Richard Kralovic

17.15-19.00	Business meeting
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Saturday 18/7

9.00-12.30	Chair: Chris Umans
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- 9.00-9.30 Communication Complexity of Read Once AC0 Formulae
T.S. Jayram, Swastik Kopparty, Prasad Raghavendra
- 9.30-10.00 Lower bounds on the randomized communication complexity of read-once functions
Nikos Leonardos, Michael Saks
- 10.00-10.30 An approximation algorithm for approximation rank
Troy Lee, Adi Shraibman

10.30-11.00	Break
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- 11.00-11.30 A Multi-Round Communication Lower Bound for Gap Hamming and Some Consequences
Joshua Brody, Amit Chakrabarti
- 11.30-12.00 New Results in the Simultaneous Message Passing Model
Rahul Jain, Hartmut Klauck
- 12.00-12.30 The Maximum Communication Complexity of Multi-party Pointer Jumping
Joshua Brody