CSE 6512 Randomization in Computing
A list of papers

1. M. Gupta, R. Y. Zhang, Interactive Error Correcting Codes: New Constructions and Impossibility Bounds, RANDOM 2023.
2. E. Karayel, An embarrassingly parallel optimal-space cardinality estimation algorithm, RANDOM 2023.
3. X. Chen, Y. Jin, T. Randolph, R. A. Servedio, Subset Sum in time $2^{n/2}/poly(n)$, RANDOM 2023.
4. R, Arviv, L. Chung, R. Levi, E. Pyne, Improved Local Computation Algorithms for Constructing Spanners, RANDOM 2023.
5. R. Gotlib, T. Kaufman, Fine Grained Analysis of High Dimensional Random Walks, RANDOM 2023.
6. T. Eden, J. Houen, S. Narayanan, W. Rosenbaum, J. Totek, Bias Reduction for Sum Estimation, RANDOM 2023.
7. Shiva Kasiviswanathan and Mark Rudelson, Spectral Norm of Random Kernel Matrices with Applications to Privacy, RANDOM 2015.
8. David Felber and Rafail Ostrovsky, A randomized online quantile summary in $O(\frac{1}{\varepsilon}\log\frac{1}{\varepsilon})$ words, RANDOM 2015.
9. Amin Coja-Oghlan, Charilaos Efthymiou and Nor Jaafari, Local convergence of random graph colorings, RANDOM 2015.
10. Dmitry Gavinsky, Hartmut Klauck and Ralph Bottesch, Correlation in Hard Distributions in Communication Complexity, RANDOM 2015.
11. Bernhard Haeupler, Pritish Kamath and Ameya Velingker, Communication with partial noiseless feedback, RANDOM 2015.
12. Mark Bun and Thomas Steinke, Weighted Polynomial Approximations: Limits for Learning and Pseudorandomness, RANDOM 2015.
13. Joshua Brody and Mario Sanchez, Dependent Random Graphs and Multiparty Pointer Jumping, RANDOM 2015.
14. Siyao Guo and Ilan Komargodski, Negation-Limited Formulas, RANDOM 2015.
15. Rong Ge and Tengyu Ma, Decomposing Overcomplete 3rd Order Tensors using Sum-of-Squares Algorithms, RANDOM 2015.
16. Eric Blais, Clment Canonne, Igor Carboni Oliveira, Rocco Servedio and Li-Yang Tan, Learning circuits with few negations, RANDOM 2015.
17. Oded Goldreich, On Multiple Input Problems in Property Testing, RANDOM 2014.
18. Nathanael Francois, Frederic Magniez and Rahul Jain, Unidirectional Input/Output Streaming Complexity of Reversal and Sorting, RANDOM 2014.
19. Reut Levi, Dana Ron and Ronitt Rubinfeld, Local Algorithms for Sparse Spanning Graphs, RANDOM 2014.
20. Adam Klivans and Pravesh Kothari, Embedding Hard Learning Problems into Gaussian Space, RANDOM 2014.
21. Varun Kanade, Elchanan Mossel and Tselil Schramm, Global and Local Information in Clustering Labeled Block Models, RANDOM 2014.

22. Flavio Chierichetti, Anirban Dasgupta, Ravi Kumar and Silvio Lattanzi, On Reconstructing a Hidden Permutation, RANDOM 2014.

23. Mika Goos and Thomas Watson, Communication Complexity of Set-Disjointness for All Probabilities, RANDOM 2014.

24. Victor Bapst, Amin Coja-Oghlan, Samuel Hetterich, Felicia Rassmann and Dan Vilenchik, The condensation phase transition in random graph coloring, RANDOM 2014.

25. Sanguthevar Rajasekaran, Sandeep Sen: Optimal and Practical Algorithms for Sorting on the PDM. IEEE Trans. Computers 57(4): 547-561 (2008).

26. N. Alon, A Parallel Algorithmic Version of the Local Lemma, *Proc. 32nd Annual IEEE Symposium on Foundations of Computer Science*, 1991, pp. 586–593.

27. K.L. Clarkson and P.W. Shor, Applications of Random Sampling in Computational Geometry, II, *Discrete Computational Geometry 4*, 1989, pp. 387–421.

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32. H. Karloff and Y. Mansour, On Construction of k-wise Independent Random Variables, *Proc. 26th Annual ACM Symposium on Theory of Computing*, 1994.

33. Y. Matias and U. Vishkin, Converting High Probability into Nearly-Constant Time-with Applications to Parallel Hashing, *Proc. 23rd Annual ACM Symposium on Theory of Computing*, 1991, pp. 307–316.

34. S. Rajasekaran and S. Ramaswami, Optimal Parallel Randomized Algorithms for the Voronoi Diagram of Line Segments in the Plane and Related Problems, *Proc. 10th Annual ACM Symposium on Computational Geometry*, 1994, pp. 57–66.

35. S. Rajasekaran and K. Ross, Fast Algorithms for Generating Discrete Random Variates with Changing Distributions, *ACM Transactions on Modeling and Computer Simulation 3(1)*, 1993, pp. 1–19.

36. J.H. Reif and S. Sen, Optimal Parallel Randomized Algorithms for Three Dimensional Convex Hulls and Related Problems, *SIAM Journal on Computing, 21(3)*, 1992, pp. 466–485.

37. S. Rajasekaran and S. Sen, A generalization of the 0-1 principle for sorting, *Information Processing Letters* 94, 2005, pp. 43-47.

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The following articles are from *Handbook of Randomized Computing*, Volumes I and II, edited by S. Rajasekaran, P.M. Pardalos, J.H. Reif and J.C. Rolim, Kluwer Academic Press, 2001.

1. Anand Srivastav, Derandomization in Combinatorial Optimization.

2. Bogdan S. Chlebus, Randomized Communication in Radio Networks.

3. Anne Condon, Bounded Error Probabilistic Finite State Automata.

4. David R. Karger, Randomization in Graph Optimization Problems: A Survey.

5. Xiaotie Deng, Randomized Geometry Algorithms for Coarse Grained Parallel Computers.

6. Josep Díaz, Jordi Petit, and Maria Serna, A Guide to Concentration Bounds.

7. Michael T. Goodrich and Roberto Tamassia, Simplified Analyses of Randomized Algorithms for Searching, Sorting, and Selection.

8. Juraj Hromkovič, Communication Protocols – An Exemplary Study of the Power of Randomness.

9. Robert Bohlin and Lydia E. Kavraki, A Randomized Approach to Robot Path Planning Based on Lazy Evaluation.

10. Peter Bro Milterson, Derandomizing Complexity Classes.

11. Michael Mitzenmacher, Andréa W. Richa, Ramesh Sitaraman, The Power of Two Random Choices: A Survey of Techniques and Results.

12. Danny Krizanc and Sanguthevar Rajasekaran, Random Sampling: Sorting and Selection.

13. Abhiram Ranade, The Delay Sequence Argument.

14. Dana Ron, Property Testing.

15. Soticis E. Nikoletseas and Paul G. Spirakis, Random Techniques for Modelling Faults and Achieving Robust Computing.

16. Santosh Vempala, The Random Projection Method.

17. Vladik Krejnovich and Raúl Trejo, Error Estimates for Indirect Measurements: Randomized Vs. Deterministic Algorithms for "Black-Box" Problems.

18. Devdatt Dubhashi and Sandeep Sen, Concentration of Measure for Randomized Algorithms: Techniques and Analysis.

19. Pankaj K. Agarwal and Sandeep Sen, Randomized Algorithms for Geometric Optimization Problems.