List of Publications

Dana Ron

July 2022

Journal Papers

Published and in Press

- [J1] D. Ron and R. Rubinfeld, "Learning Fallible Finite State Automata", *Machine Learning, COLT93 special issue*, volume 18, number 2, pages 149–185, 1995.
- [J2] M. Ben-Or and D. Ron, "Agreement in the Presence of Faults on Networks of Bounded Degree", *Information Processing Letters*, volume 57, number 6, pages 329–334, 1996.
- [J3] D. Ron, Y. Singer, and N. Tishby, "The Power of Amnesia: Learning Probabilistic Automata with Variable Memory Length", *Machine Learning, COLT94 special issue*, volume 25, number 2, pages 117–149, 1996.
- [J4] D. Ron and R. Rubinfeld, "Exactly Learning Automata of Small Cover Time", *Machine Learning, COLT95 special issue*, volume 27, number 1, pages 69–96, 1997.
- [J5] Y. Freund, M. Kearns, D. Ron, R. Rubinfeld, R. E. Schapire, and L. Sellie, "Efficient Learning of Typical Finite Automata from Random Walks", *Information and Computation*, volume 138, number 1, pages 23–48, 1997.
- [J6] O. Goldreich and D. Ron, "On Universal Learning Algorithms", *Information Processing Letters*, volume 63, number 3, pages 131–136 1997.
- [J7] M. J. Kearns, Y. Mansour, A. Ng, and D. Ron, "An Experimental and Theoretical Comparison of Model Selection Methods", *Machine Learning, COLT95 special issue*, volume 27, number 1, pages 7–50, 1997.
- [J8] D. Ron, Y. Singer, and T. Tishby, "On the Learnability and Usage of Acyclic Probabilistic Finite Automata", Journal of Computer and System Sciences, COLT95 special issue, volume 56, number 2, pages 133–152, 1998
- [J9] O. Goldreich, S. Goldwasser, and D. Ron, "Property Testing and its Connection to Learning and Approximation", *Journal of the ACM*, volume 45, number 4, pages 653–750, 1998.
- [J10] M. Kearns and D. Ron, "Algorithmic Stability and Sanity-Check Bounds for Leave-One-Out Cross-Validation", *Neural Computation*, volume 11, number 6, pages 1427–1453, 1999.
- [J11] O. Goldreich and D. Ron, "A Sublinear Bipartite Tester for Bounded Degree Graphs", *Combinatorica*, volume 19, number 3, pages 335–373, 1999.
- [J12] I. Kremer, N. Nisan, and D. Ron, "On Randomized One-Round Communication Complexity", Computational Complexity, volume 8, pages 21–48, 1999.
- [J13] S. Decatur, O. Goldreich, and D. Ron, "Computational Sample Complexity", SIAM Journal on Computing, volume 29, number 3, pages 854–879, 1999.
- [J14] O. Goldreich, D. Ron, and M. Sudan, "Chinese Remaindering with Errors", *IEEE Transactions on Information Theory*, volume 46, number 4, pages 1330–1338, 2000.

- [J15] O. Goldreich, S. Goldwasser, E. Lehman, D. Ron, and A. Samorodnitsky, "Testing Monotonicity", *Combina-torica*, volume 20, number 3, pages 301–307, 2000.
- [J16] M. Kearns and D. Ron, "Testing Problems with Sub-Learning Sample Complexity", *Journal of Computer and System Sciences*. volume 61, no. 3, pages 428–456, 2000.
- [J17] E. Lehman and D. Ron, "On Disjoint Chains of Subsets", Journal of Combinatorial Theory, Series A, 94, 399– 404, 2001.
- [J18] O. Goldreich and D. Ron, "Property Testing in Bounded Degree Graphs", *Algorithmica*, volume 32, no. 2, pages 302–343, 2002.
- [J19] M. Parnas and D. Ron, "Testing the Diameter of Graphs", *Random Structures and Algorithms*, volume 20, no. 2, pages 165–183, 2002.
- [J20] M. Bender, and D. Ron, "Testing Properties of Directed Graphs: Acyclicity and Connectivity", Random Structures and Algorithms, volume 20, no. 2, pages 184–205, 2002.
- [J21] M. Bender, A. Fernandez, D. Ron, A. Sahai, and S. Vadhan, "The Power of a Pebble: Exploring and Mapping Directed Graphs", *Information and Computation*, volume 176, pages 1–21, 2002.
- [J22] M. Parnas, D. Ron and A. Samorodnitsky, "Testing Basic Boolean Formulae", SIAM Journal on Discrete Math, volume 16, no. 1, pages 20–46, 2002.
- [J23] M. Parnas, D. Ron and R. Rubinfeld, "Testing Membership in Parenthesis Languages", *Random Structures and Algorithms*, volume 22, no. 1, pages 98–138, 2003.
- [J24] N. Alon, S. Dar, M. Parnas, and D. Ron, "Testing of Clustering", SIAM Journal on Discrete Math, volume 16, no. 3, pages 393–417, 2003.
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- [J26] M. Parnas and D. Ron, "Testing Metric Properties", *Information and Computation*, volume 187, no. 2, pages 155–195, 2003.
- [J27] G. Even, Z. Lotker, D. Ron, and S. Smorodinsky, "Conflict-Free Colorings of Simple Geometric Regions with Applications to Frequency Assignment in Cellular Networks", *SIAM Journal on Computing*, volume 33, no. 1, pages 94–136, 2003.
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- [J32] N. Alon, T. Kaufman, M. Krivelevich, S. Litsyn and D. Ron, "Testing Reed-Muller codes", *IEEE Transactions on Information Theory*, volume 51, no. 11, pages 4032–4039, 2005.

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- [J34] M. Parnas, D. Ron and R. Rubinfeld, "Tolerant Property Testing and Distance Approximation", Journal of Computer and System Sciences, volume 72, no. 6, pages 1012–1042, 2006.
- [J35] T. Kaufman and D. Ron, "Testing Polynomials over General Fields", SIAM Journal on Computing, volume 36, no. 3, pages 779–802, 2006.
- [J36] D. Ron and A. Rosenfeld and S. Vadhan, "The Hardness of the Expected Decision Depth Problem", *Information Processing Letters*, volume 101, no. 3, pages 112–118, 2007.
- [J37] M. Parnas and D. Ron, "Approximating the Minimum Vertex Cover in Sublinear Time and a Connection to Distributed Algorithms", *Theoretical Computer Science*, volume 381, no. 1–3, pages 183–196, 2007.
- [J38] O. Goldreich and D. Ron, "Approximating Average Parameters of Graphs", *Random Structures and Algorithms*, volume 32, no. 4, pages 473–493, 2008.
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- [J42] G. Even, M. Halldórsson, L. Kaplan and D. Ron, "Scheduling with Conflicts: Online and Offline Algorithms", *Journal of Scheduling*, volume 12, no. 2, pages 199–224, 2009.
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- [J44] S. Raskhodnikova, D. Ron, A. Shpilka, and A. Smith, "Strong Lower Bounds for Approximating Distribution Support Size and the Distinct Elements Problem", *SIAM Journal On Computing*, volume 39, no. 3, pages 813–842, 2009.
- [J45] M. Gonen and D. Ron, "On the Benefits of Adaptivity in Property Testing of Dense Graphs", Algorithmica (special issue for RANDOM and APPROX 2007), volume 58, no. 4, pages 811–830, 2010.
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- [J63] C. Canonne, D. Ron and R. Servedio. "Testing probability distributions using conditional samples", SIAM Journal on Computing, volume 44, number 3, pages 540–616, 2015.
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- [J65] D. Ron and G. Tsur, "The Power of an Example: Hidden set size approximation using group queries and conditional sampling", *ACM Transactions on Computation Theory*, volume 8, issue 4, article no. 15, 2016.
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- [J70] G. Even, M. Medina and D. Ron, "Best of Two Local Models: Centralized local and Distributed local Algorithms", *Information and Computation*, volume 262, part 1, pages 69–89, 2018.

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- [J72] M. Parnas, D. Ron and A. Shraibman, "The Boolean rank of the uniform intersection matrix and a family of its submatrices", *Linear Algebra and its Applications*, volume 574, pages 67–83, 2019.
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- [J74] T. Eden, R. Levi, and D. Ron, "Testing Bounded Arboricity", *ACM Transactions on Algorithms*, volume 16, number 2, article no. 18, 2020.
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- [J76] T. Eden, D. Ron and C. Seshadhri, "On Approximating the Number of k-Cliques in Sublinear Time". SIAM Journal on Computing, volume 49, number 4, pages 747–771, 2020.
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- [J80] D. Ron and A. Rosin, "Optimal Distribution-Free Sample-Based Testing of Subsequence-Freeness with One-Sided Error" ACM Transactions on Computation Theory volume 14, number 1, pages 1–31, 2022.

Book Chapters

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- [B2] D. Ron, "Sublinear-Time Algorithms for Approximating Graph Parameters", in *Computing and Software Science State of the Art and Perspectives*, pages 105–122, Edited by Bernhard Steffen and Gerhard J. Woeginger, Springer, 2019.
- [B3] S. Decatur, O. Goldreich and D. Ron, "A Probabilistic Error-Correcting Scheme that Provides Partial Secrecy", in: *Computational Complexity and Property Testing*, Lecture Notes in Computer Science, vol 12050, pages 1–8. Springer, 2020.
- [B4] O. Goldreich and D. Ron, "On the Relation Between the Relative Earth Mover Distance and the Variation Distance (an Exposition)", in: *Computational Complexity and Property Testing*, Lecture Notes in Computer Science, vol 12050, pages 141–151. Springer, 2020.

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- [E1] D. Ron, "Property Testing", in *The Encyclopedia of Applied and Computational Mathematics*, pages 1181– 1184, Edited by B. Engquist and M. Peters, Springer, 2015.
- [E2] O. Goldreich and D. Ron, "Estimating Simple Graph Parameters in Sublinear Time", *Encyclopedia of Algorithms, 2nd Edition*, pages 650–653, Edited by Ming-Yang Kao, Springer, 2016.

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- [C2] D. Ron and R. Rubinfeld, "Learning Fallible Finite State Automata", in *Proceedings of the 6th Annual Conference on Computational Learning Theory (COLT)*, pages 218–227, 1993. (This is an extended abstract of [J1].)
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- [C13] O. Goldreich and D. Ron, "Property Testing in Bounded Degree Graphs", in *Proceedings of the 29th Annual ACM Symposium on Theory of Computing (STOC)*, pages 406–415, 1997. (This is an extended abstract of [J18].)
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¹Though the term "workshop" appears in the title, this is a (refereed) conference.

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- [C34] T. Kaufman and D. Ron, "Testing Polynomials over General Fields", in *Proceedings of the 45th Annual Symposium on Foundations of Computer Science (FOCS)*, pages 413–422, 2004. (This work is an extended abstract of [J35], and part of it is included in [J33].)
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