Resource-Bounded Measure Bibliography

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[1] E. Allender. Circuit complexity before the dawn of the new millennium. In *Proceedings of the 16th Annual Conference on Foundations of Software Technology and Theoretical Computer Science*, pages 1–18. Springer-Verlag, 1996.

[2] E. Allender. When worlds collide: Derandomization, lower bounds, and Kolmogorov complexity. In *Proceedings of the 21st Conference on Foundations of Software Technology and Theoretical Computer Science*, pages 1–15. Springer-Verlag, 2001.

[3] E. Allender and M. Strauss. Measure on small complexity classes with applications for BPP. In *Proceedings of the 35th Symposium on Foundations of Computer Science*, pages 807–818. IEEE Computer Society, 1994.

[4] E. Allender and M. Strauss. Measure on P : Robustness of the notion. In *Proceedings of the 20th International Symposium on Mathematical Foundations of Computer Science*, pages 129–138. Springer-Verlag, 1995.

[5] K. Ambos-Spies. Measure theoretic completeness notions for the exponential time classes. In *Proceedings of the 25th International Symposium on Mathematical Foundations of Computer Science*, pages 152–161. Springer-Verlag, 2000.

[6] K. Ambos-Spies and L. Bentzien. Separating NP-completeness notions under strong hypotheses. *Journal of Computer and System Sciences*, 61(3):335–361, 2000.

[7] K. Ambos-Spies, S. Lempp, and G. Mainhardt. Randomness vs. completeness: On the diagonalization strength of resource-bounded random sets. In *Proceedings of the 23rd International Symposium on Mathematical Foundations of Computer Science*, pages 465–473. Springer-Verlag, 1998.

[8] K. Ambos-Spies and E. Mayordomo. Resource-bounded measure and randomness. In A. Sorbi, editor, *Complexity, Logic and Recursion Theory*, Lecture Notes in Pure and Applied Mathematics, pages 1–47. Marcel Dekker, New York, N.Y., 1997.

[9] K. Ambos-Spies, E. Mayordomo, Y. Wang, and X. Zheng. Resource-bounded balanced genericity, stochasticity, and weak randomness. In *Proceedings of the 13th Annual Symposium on Theoretical Aspects of Computer Science*, pages 63–74. Springer-Verlag, 1996.

[10] K. Ambos-Spies, E. Mayordomo, and X. Zheng. A comparison of weak completeness notions. In *Proceedings of the Eleventh IEEE Conference on Computational Complexity*, pages 171–178. IEEE Computer Society, 1996.

[11] K. Ambos-Spies, W. Merkle, J. Reimann, and S. A. Terwijn. Almost complete sets. *Theoretical Computer Science*, 306(1–3):177–194, 2003.

[12] K. Ambos-Spies, H.-C. Neis, and S. A. Terwijn. Genericity and measure for exponential time. *Theoretical Computer Science*, 168(1):3–19, 1996.

[13] K. Ambos-Spies, S. A. Terwijn, and X. Zheng. Resource bounded randomness and weakly complete problems. *Theoretical Computer Science*, 172(1–2):195–207, 1997.

[14] V. Arvind and J. Köbler. On pseudorandomness and resource-bounded measure. *Theoretical Computer Science*, 255(1–2):205–221, 2001.

[15] R. V. Book and J. H. Lutz. On languages with very high space-bounded Kolmogorov complexity. *SIAM Journal on Computing*, 22(2):395–402, 1993.

[16] R. V. Book and E. Mayordomo. On the robustness of ALMOST-R. *Rairo Informatique Théorique et Applications*, 30(2):123–133, 1996.

[17] J. M. Breutzmann and J. H. Lutz. Equivalence of measures of complexity classes. *SIAM Journal on Computing*, 29(1):302–326, 2000.

[18] H. Buhrman, S. Fenner, and L. Fortnow. Results on resource-bounded measure. In *Proceedings of the 24th International Colloquium on Automata, Languages and Programming*, pages 188–194. Springer-Verlag, 1997.

[19] H. Buhrman and L. Fortnow. Two queries. *Journal of Computer and System Sciences*, 59(2):182–194, 1999.

[20] H. Buhrman, B. Hescott, S. Homer, and L. Torenvliet. Non-uniform reductions. *Theory of Computing Systems*, 47(2):317–341, 2010.

[21] H. Buhrman and L. Longpré. Compressibility and resource bounded measure. *SIAM Journal on Computing*, 31(3):876–886, 2002.

[22] H. Buhrman and E. Mayordomo. An excursion to the Kolmogorov random strings. *Journal of Computer and System Sciences*, 54(3):393–399, 1997.

[23] H. Buhrman and L. Torenvliet. On the structure of complete sets. In *Proceedings of the Ninth Annual Structure in Complexity Theory Conference*, pages 118–133. IEEE Computer Society, 1994.

[24] H. Buhrman and L. Torenvliet. Complete sets and structure in subrecursive classes. In *Logic Colloquium '96*, volume 12 of *Lecture Notes in Logic*, pages 45–78. Association for Symbolic Logic, 1998.

[25] H. Buhrman and D. van Melkebeek. Hard sets are hard to find. *Journal of Computer and System Sciences*, 59(2):327–345, 1999.

[26] H. Buhrman, D. van Melkebeek, K. W. Regan, D. Sivakumar, and M. Strauss. A generalization of resource-bounded measure, with application to the BPP vs. EXP problem. *SIAM Journal on Computing*, 30(2):576–601, 2001.

[27] J. Cai and A. L. Selman. Fine separation of average time complexity classes. *SIAM Journal on Computing*, 28(4):1310–1325, 1999.

[28] J. Cai, D. Sivakumar, and M. Strauss. Constant-depth circuits and the Lutz hypothesis. In *Proceedings of the 38th Symposium on Foundations of Computer Science*, pages 595–604. IEEE Computer Society, 1997.

[29] C. Calude and M. Zimand. Effective category and measure in abstract complexity theory. *Theoretical Computer Science*, 154(2):307–327, 1996.

[30] D. Chakraborty, S. Nandakumar, and H. Shukla. On resource-bounded versions of the van lambalgen theorem. In *International Conference on Theory and Applications of Models of Computation*, pages 129–143. Springer, 2017.

[31] R. Chang and S. Purini. Bounded queries and the NP machine hypothesis. In *Proceedings of the Twenty-Second Annual IEEE Conference on Computational Complexity*, pages 52–59. IEEE Computer Society, 2007.

[32] J. J. Dai. A stronger Kolmogorov zero-one law for resource-bounded measure. *Theoretical Computer Science*, 292(3):723–732, 2003.

[33] J. J. Dai. An outer-measure approach for resource-bounded measure. *Theory of Computing Systems*, 45(1):64–73, 2009.

[34] J. J. Dai and J. H. Lutz. Query order and NP-completeness. In *Proceedings of the 14th IEEE Conference on Computational Complexity*, pages 142–148. IEEE Computer Society, 1999.

[35] D. Doty and P. Moser. Feasible depth. In *Proceedings of the 3rd Conference on Computability in Europe*. Springer-Verlag, 2007. To appear.

[36] T. Ebert, W. Merkle, and H. Vollmer. On the autoreducibility of random sequences. *SIAM Journal on Computing*, 32(6):1542–1569, 2003.

[37] S. A. Fenner, J. H. Lutz, E. Mayordomo, and P. Reardon. Weakly useful sequences. *Information and Computation*, 197(1–2):41–54, 2005.

[38] L. Fortnow. Relativized worlds with an infinite hierarchy. *Information Processing Letters*, 69(6):309–313, 1999.

[39] L. Fortnow and M. Kummer. On resource-bounded instance complexity. *Theoretical Computer Science*, 161(1-2):123–140, 1996.

[40] L. Fortnow, J. H. Lutz, and E. Mayordomo. Inseparability and strong hypotheses for disjoint np pairs. Technical Report TR09-022, Electronic Colloquium on Computational Complexity, 2009.

[41] L. Fortnow, A. Pavan, and A. L. Selman. Distributionally hard languages. *Theory of Computing Systems*, 34(3):245–261, 2001.

[42] E. Grädel and A. Malmström. 0-1 laws for recursive structures. *Archive for Mathematical Logic*, 38(4):205–215, 1999.

[43] R. C. Harkins and J. M. Hitchcock. Upward separations and weaker hypotheses in resource-bounded measure. *Theoretical Computer Science*, 389(1–2), 2007.

[44] R. C. Harkins and J. M. Hitchcock. Exact learning algorithms, betting games, and circuit lower bounds. *ACM Transactions on Computation Theory*, 5(4):article 18, 2013.

[45] R. C. Harkins, J. M. Hitchcock, and A. Pavan. Stronger reductions and isomorphism of complete sets. *Computability*, 3(2):91–104, 2014.

[46] M. Hauptmann. The measure hypothesis and efficiency of polynomial time approximation schemes. In *Proceedings of the Tenth Italian Conference on Theoretical Computer Science*, pages 151–163. World Scientific, 2007.

[47] L. A. Hemachandra, M. Ogiwara, and O. Watanabe. How hard are sparse sets? In *Proceedings of the Seventh Annual Structure in Complexity Theory Conference*, pages 222–238. IEEE Computer Society Press, 1992.

[48] J. M. Hitchcock. The size of SPP. *Theoretical Computer Science*, 320(2–3):495–503, 2004.

[49] J. M. Hitchcock and J. H. Lutz. Why computational complexity requires stricter martingales. *Theory of Computing Systems*, 39(2):277–296, 2006.

[50] J. M. Hitchcock and A. Pavan. Comparing reductions to NP-complete sets. *Information and Computation*, 205(5):694–706, 2007.

[51] J. M. Hitchcock and A. Sekoni. Nondeterministic sublinear time has measure 0 in P. *Theory of Computing Systems*, 63(3):386–393, 2019.

[52] J. M. Hitchcock, A. Sekoni, and H. Shafei. Polynomial-time random oracles and separating complexity classes. *ACM Trans. Comput. Theory*, 13(1), 1 2021.

[53] J. M. Hitchcock and H. Shafei. Autoreducibility of NP-complete sets under strong hypotheses. *computational complexity*, 27:63–97, 2018.

[54] J. M. Hitchcock and H. Shafei. Nonuniform reductions and NP-completeness. *Theory of Computing Systems*, 66(4):743–757, 2022.

[55] R. Impagliazzo and P. Moser. A zero-one law for RP and derandomization of AM if NP is not small. *Information and Computation*, 207(7):787 – 792, 2009.

[56] G. Istrate. Resource-bounded measure and autoreducibility. Technical Report 644, Department of Computer Science, University of Rochester, December 1996.

[57] D. W. Juedes. *The Complexity and Distribution of Computationally Useful Problems*. PhD thesis, Iowa State University, 1994.

[58] D. W. Juedes. Weakly complete problems are not rare. *Computational Complexity*, 5(3/4):267–283, 1995.

[59] D. W. Juedes, J. I. Lathrop, and J. H. Lutz. Computational depth and reducibility. *Theoretical Computer Science*, 132(1–2):37–70, 1994.

[60] D. W. Juedes and J. H. Lutz. Kolmogorov complexity, complexity cores, and the distribution of hardness. In O. Watanabe, editor, *Kolmogorov Complexity and Computational Complexity*, pages 43–65. Springer-Verlag, 1992.

[61] D. W. Juedes and J. H. Lutz. The complexity and distribution of hard problems. *SIAM Journal on Computing*, 24(2):279–295, 1995.

[62] D. W. Juedes and J. H. Lutz. Weak completeness in E and E_2. *Theoretical Computer Science*, 143(1):149–158, 1995.

[63] D. W. Juedes and J. H. Lutz. Completeness and weak completeness under polynomial-size circuits. *Information and Computation*, 125(1):13–31, 1996.

[64] S. M. Kautz. Resource-bounded randomness and compressibility with respect to nonuniform measures. In *Proceedings of the International Workshop on Randomization and Approximation Techniques in Computer Science*, pages 197–211. Springer-Verlag, 1997.

[65] S. M. Kautz and P. B. Miltersen. Relative to a random oracle, NP is not small. *Journal of Computer and System Sciences*, 53(2):235–250, 1996.

[66] J. Köbler and W. Lindner. On the resource bounded measure of P/poly. In *Proceedings of the 13th IEEE Conference on Computational Complexity*, pages 182–185. IEEE Computer Society, 1998.

[67] J. Köbler and W. Lindner. On distribution-specific learning with membership queries versus pseudorandom generation. In *Proceedings of the 20th Conference on Foundations of Software Technology and Theoretical Computer Science*, pages 336–347. Springer-Verlag, 2000.

[68] J. Köbler, W. Lindner, and R. Schuler. Derandomizing RP if Boolean circuits are not learnable. Technical Report UIB-1999-05, Universität Ulm, 1999.

[69] J. Köbler and R. Schuler. Average-case intractability vs. worst-case intractability. In *Proceedings of the 23rd International Symposium on Mathematical Foundations of Computer Science*, pages 493–502. Springer-Verlag, 1998.

[70] J. I. Lathrop and J. H. Lutz. Recursive computational depth. *Information and Computation*, 153(2):139–172, 1999.

[71] W. Lindner. On the polynomial time bounded measure of one-truth-table degrees and p-selectivity. Diplomarbeit, Technische Universität Berlin, 1993.

[72] W. Lindner and R. Schuler. A small span theorem within P. Technical Report UIB-1997-02, Universität Ulm, 1997.

[73] W. Lindner, R. Schuler, and O. Watanabe. Resource-bounded measure and learnability. *Theory of Computing Systems*, 33(2):151–170, 2000.

[74] A. K. Lorentz and J. H. Lutz. Genericity and randomness over feasible probability measures. *Theoretical Computer Science*, 207(1):245–259, 1998.

[75] J. H. Lutz. One-way functions and balanced NP. *Theoretical Computer Science*. To appear.

[76] J. H. Lutz. *Resource-Bounded Category and Measure in Exponential Complexity Classes*. PhD thesis, California Institute of Technology, 1987.

[77] J. H. Lutz. Category and measure in complexity classes. *SIAM Journal on Computing*, 19(6):1100–1131, 1990.

[78] J. H. Lutz. Pseudorandom sources for BPP. *Journal of Computer and System Sciences*, 41(3):307–320, 1990.

[79] J. H. Lutz. An upward measure separation theorem. *Theoretical Computer Science*, 81(1):127–135, 1991.

[80] J. H. Lutz. Almost everywhere high nonuniform complexity. *Journal of Computer and System Sciences*, 44(2):220–258, 1992.

[81] J. H. Lutz. On independent random oracles. *Theoretical Computer Science*, 92:301–307, 1992.

[82] J. H. Lutz. A pseudorandom oracle characterization of BPP. *SIAM Journal on Computing*, 22(5):1075–1086, 1993.

[83] J. H. Lutz. A small span theorem for P/Poly-Turing reductions. In *Proceedings of the Tenth Annual Structure in Complexity Theory Conference*, pages 324–330. IEEE Computer Society, 1995.

[84] J. H. Lutz. Weakly hard problems. *SIAM Journal on Computing*, 24(6):1170–1189, 1995.

[85] J. H. Lutz. Observations on measure and lowness for Δ_2^{P}. *Theory of Computing Systems*, 30(4):429–442, 1997.

[86] J. H. Lutz. The quantitative structure of exponential time. In L. A. Hemaspaandra and A. L. Selman, editors, *Complexity Theory Retrospective II*, pages 225–254. Springer-Verlag, 1997.

[87] J. H. Lutz. Resource-bounded measure. In *Proceedings of the 13th IEEE Conference on Computational Complexity*, pages 236–248. IEEE Computer Society, 1998.

[88] J. H. Lutz. Computability versus exact computability of martingales. *Information Processing Letters*, 92(5):235–237, 2004.

[89] J. H. Lutz and E. Mayordomo. Measure, stochasticity, and the density of hard languages. *SIAM Journal on Computing*, 23(4):762–779, 1994.

[90] J. H. Lutz and E. Mayordomo. Cook versus Karp-Levin: Separating completeness notions if NP is not small. *Theoretical Computer Science*, 164(1–2):141–163, 1996.

[91] J. H. Lutz and E. Mayordomo. Twelve problems in resource-bounded measure. *Bulletin of the European Association for Theoretical Computer Science*, 68:64–80, 1999. Also in *Current Trends in Theoretical Computer Science: Entering the 21st Century*, pages 83–101, World Scientific Publishing, 2001.

[92] J. H. Lutz, V. Mhetre, and S. Srinivasan. Hard instances of hard problems. In *Proceedings of the 17th Annual Symposium on Theoretical Aspects of Computer Science*, pages 324–333. Springer-Verlag, 2000.

[93] J. H. Lutz and W. J. Schmidt. Circuit size relative to pseudorandom oracles. *Theoretical Computer Science*, 107(1):95–120, 3 1993.

[94] J. H. Lutz and D. L. Schweizer. Feasible reductions to kolmogorov-loveland stochastic sequences. *Theoretical Computer Science*, 225(1–2):185–194, 1999.

[95] J. H. Lutz and M. Strauss. Bias invariance of small upper spans. In *Proceedings of the 17th Annual Symposium on Theoretical Aspects of Computer Science*, pages 74–86. Springer-Verlag, 2000.

[96] J. H. Lutz and Y. Zhao. The density of weakly complete problems under adaptive reductions. *SIAM Journal on Computing*, 30(4):1197–1210, 2000.

[97] D. Mandal, A. Pavan, and R. Venugopalan. Separating Cook Completeness from Karp-Levin Completeness Under a Worst-Case Hardness Hypothesis. In *34th International Conference on Foundation of Software Technology and Theoretical Computer Science (FSTTCS 2014)*, volume 29 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 445–456, 2014.

[98] E. Mayordomo. Almost every set in exponential time is P-bi-immune. *Theoretical Computer Science*, 136(2):487–506, 1994.

[99] E. Mayordomo. *Contributions to the study of resource-bounded measure*. PhD thesis, Universitat Politècnica de Catalunya, 1994.

[100] E. Mayordomo. Measuring in PSPACE. In *Proceedings of the 7th International Meeting of Young Computer Scientists*, volume 6 of *Topics in Computer Science*, pages 93–100. Gordon and Breach, 1994.

[101] W. Merkle. The global power of additional queries to p-random oracles. *SIAM Journal on Computing*, 31(2):483–495, 2001.

[102] W. Merkle and N. Mihailovíc. On the construction of effective random sets. *Journal of Symbolic Logic*, 69(3):862–878, 2004.

[103] W. Merkle, N. Mihailovíc, and T. A. Slaman. Some results on effective randomness. *Theory of Computing Systems*, 39(5):707–721, 2006.

[104] P. Moser. A generalization of Lutz's measure to probabilistic classes. Technical Report TR02-058, Electronic Colloquium on Computational Complexity, 2002.

[105] P. Moser. ZPP is hard unless RP is small. Technical Report TR02-015, Electronic Colloquium on Computational Complexity, 2002.

[106] P. Moser. RP is small in SUBEXP else ZPP equals PSPACE and NP equals EXP. Technical Report TR03-040, Electronic Colloquium on Computational Complexity, 2003.

[107] P. Moser. Baire categories on small complexity classes and meager-comeager laws. *Information and Computation*, 206(1):15–33, 2008.

[108] P. Moser. Resource-bounded measure on probabilistic classes. *Information Processing Letters*, 106(6):241–245, 2008.

[109] A. V. Naik, K. W. Regan, and D. Sivakumar. On quasilinear-time complexity theory. *Theoretical Computer Science*, 148(2):325–349, 1995.

[110] S. Nandakumar and S. Pulari. Ergodic theorems and converses for PSPACE functions. *Theory of Computing Systems*, 67(3):491–520, 2023.

[111] A. Nies and F. Stephan. Closure of Resource-Bounded Randomness Notions Under Polynomial-Time Permutations. In *35th Symposium on Theoretical Aspects of Computer Science (STACS 2018)*, volume 96 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 51:1–51:10, 2018.

[112] A. Pavan. Comparison of reductions and completeness notions. *SIGACT News*, 34(2):27–41, June 2003.

[113] A. Pavan and A. L. Selman. Complete distributional problems, hard languages, and resource-bounded measure. *Theoretical Computer Science*, 234(1–2):273–286, 2000.

[114] O. Powell. Measure on P revisited. Technical Report TR02-065, Electronic Colloquium on Computational Complexity, 2002.

[115] O. Powell. PSPACE contains almost complete problems. Technical Report TR03-028, Electronic Colloquium on Computational Complexity, 2003.

[116] O. Powell. A note on measuring in P. *Theoretical Computer Science*, 320(2–3):229–246, 2004.

[117] O. Powell. Almost completeness in small complexity classes. Technical Report TR05-010, Electronic Colloquium on Computational Complexity, 2005.

[118] K. W. Regan and D. Sivakumar. Improved resource-bounded Borel-Cantelli and stochasticity theorems. Technical Report UB-CS-TR 95-08, Computer Science Department, University at Buffalo, 1995.

[119] K. W. Regan and D. Sivakumar. Probabilistic martingales and BPTIME classes. In *Proceedings of the 13th Annual IEEE Conference on Computational Complexity*, pages 186–200. IEEE Computer Society, 1998.

[120] K. W. Regan, D. Sivakumar, and J. Cai. Pseudorandom generators, measure theory, and natural proofs. In *Proceedings of the 36th Symposium on Foundations of Computer Science*, pages 26–35. IEEE Computer Society, 1995.

[121] D. Ronneberger. *Kolmogorov Complexity and Derandomization*. PhD thesis, Rutgers University, 2004.

[122] M. Schaefer and F. Stephan. Strong reductions and immunity for exponential time. In *Proceedings of the 20th Annual Symposium on Theoretical Aspects of Computer Science*, pages 559–570. Springer-Verlag, 2003.

[123] R. Schuler. Truth-table closure and turing closure of average polynomial time have different measures in EXP. In *Proceedings of the Eleventh Annual IEEE Conference on Computational Complexity*, pages 190–197. IEEE Computer Society, 1996.

[124] R. Schuler and T. Yamakami. Sets computable in polynomial time on average. In *Proceedings of the 1st Annual International Computing and Combinatorics Conference*, pages 400–409. Springer-Verlag, 1995.

[125] D. Sivakumar. *Probabilistic Techniques in Structural Complexity Theory*. PhD thesis, SUNY at Buffalo, 1996.

[126] M. Strauss. Measure on P: Strength of the notion. *Information and Computation*, 136(1):1–23, 1997.

[127] M. Strauss. Normal numbers and sources for BPP. *Theoretical Computer Science*, 178(1–2):155–169, 1997.

[128] D. M. Stull. Resource bounded randomness and its applications. In *Algorithmic Randomness: Progress and Prospects*, volume 50 of *Lecture Notes in Logic*, pages 301–. Cambridge University Press, 2020.

[129] S. A. Terwijn. *Computability and Measure*. PhD thesis, University of Amsterdam, 1998.

[130] S. A. Terwijn. On the quantitative structure of Δ^0_2. In U. Berger, H. Osswald, and P. Schuster, editors, *Reuniting the Antipodes: Constructive and Nonstandard Views of the Continuum*, pages 271–283. Kluwer Academic Press, 2000.

[131] S. A. Terwijn and L. Torenvliet. Arithmetical measure. *Mathematical Logic Quarterly*, 44(4):277–286, 1998.

[132] D. van Melkebeek. *Randomness and Completeness in Computational Complexity*. ACM Doctoral Dissertation Award Series. Springer-Verlag, 2000.

[133] D. van Melkebeek. The zero-one law holds for BPP. *Theoretical Computer Science*, 244(1–2):283–288, 2000.

[134] Y. Wang. The law of the iterated logarithm for p-random sequences. In *Proceedings of the Eleventh Annual IEEE Conference on Computational Complexity*, pages 180–189. IEEE Computer Society, 1996.

[135] Y. Wang. *Randomness and Complexity*. PhD thesis, Department of Mathematics, University of Heidelberg, 1996.

[136] Y. Wang. NP-hard sets are superterse unless NP is small. *Information Processing Letters*, 61(1):1–6, 1997.

[137] Y. Wang. Genericity, randomness, and polynomial-time approximations. *SIAM Journal on Computing*, 28(2):394–408, 1999.

[138] Y. Wang. Randomness, stochasticity, and approximations. *Theory of Computing Systems*, 32:517–529, 1999.

[139] Y. Wang. A separation of two randomness concepts. *Information Processing Letters*, 69(3):115–118, 1999.

[140] Y. Wang. Resource bounded randomness and computational complexity. *Theoretical Computer Science*, 237(1–2):33–55, 2000.

[141] T. Yamakami. *Average Case Computational Complexity Theory*. PhD thesis, University of Toronto, 1997.

[142] M. Zimand. *Existential Theorems in Computational Complexity Theory: Size and Robustness*. PhD thesis, University of Rochester, 1996.

[143] M. Zimand. How to privatize random bits. Technical Report 616, Department of Computer Science, University of Rochester, April 1996.

[144] M. Zimand. On the size of classes with weak membership properties. *Theoretical Computer Science*, 209(1–2):225–235, 1998.

[145] M. Zimand. Relative to a random oracle, P/Poly is not measurable in EXP. *Information Processing Letters*, 69(2):83–86, 1999.

[146] M. Zimand. *Computational Complexity: A Quantitative Perspective*. Elsevier, 2004.