

List of publications, Paul Fischer

Journals

- [1] Pairs Without Infimum in the Recursively Enumerable Weak Truth Table Degrees, *Journal of Symbolic Logic*, Vol. 51, Nr. 1, p. 117–129, 1986.
- [2] Which Boolean Functions can be Computed by Monotone Planar Circuits?, *Computers and Artificial Intelligence*, Vol. 10, p. 111–122, 1991.
- [3] On Learning Ring-sum-expansions, (with H.-U. Simon), *SIAM Journal on Computing*, Vol. 21, Nr. 1, p. 181–192, 1992. (Also Proc. 3rd Workshop on Computational Learning Theory (COLT '90, Rochester), p. 130–143, Morgan Kaufmann, 1990 and TR-314, University of Dortmund, 1990.)
- [4] Trial and Error: A new Approach to Space-Bounded Learning, (with F. Ameur, K.-U. Höffgen and F. Meyer auf der Heide), *Acta Informatica*, Vol.33, p. 621–631, 1996. (Also Computational Learning Theory: Proc. EuroCOLT '93, p. 133–144, Clarendon Press, Oxford, 1994, and TR-524, University of Dortmund, 1994.)
- [5] Computing a Maximum Axis-aligned Rectangle in a Convex Polygon, (with K.-U. Höffgen), *Information Processing Letters*, Vol. 51, p. 189–193, Elsevier, 1994. (Also TR-512, University of Dortmund, 1993.)
- [6] Exploiting Random Walks for Learning, (with K.-U. Höffgen and P. Bartlett), *Information and Computation*, vol. 176, p. 121–135, 2002. (Also Proc. 7th Conference on Computational Learning Theory (COLT '94, New Brunswick), p. 318–327, ACM Press, 1994. TR-534, University of Dortmund, 1994.)
- [7] Probably Almost Bayes Decisions, (with S. Anoulova, S. Pölt and H.-U. Simon), *Information and Computation*, Vol. 129, p. 63–71, 1996. (Extended version of [17] and [18]).
- [8] Sequential and Parallel Algorithms for Finding a Maximum Convex Polygon, *Computational Geometry, Theory and Applications*, 7, p. 187–200, 1997. (Also TR-515, University of Dortmund, 1994.)
- [9] PAC-Learning from General Examples, (with K.-U. Höffgen and H. Lefmann). *Theoretical Computer Science*, 172, p. 43–65, 1997. (Also 4th International Symposium on Artificial Intelligence and Mathematics 1996, AiMath '96, Fort Lauderdale).
- [10] On the Cut-off Point for Combinatorial Group Testing, (with N. Klasner and I. Wegener), *Discrete Applied Mathematics* 91, p. 83–92, 1999.
- [11] A lower bound for families of Natarajan dimension d , (with J. Matoušek), *Journal of Combinatorial Theory, Series A*, Vol. 95, p. 189–195,.

- [12] Sample-efficient Strategies for Learning in the Presence of Noise, (with N. Cesa-Bianchi, E. Dichterman, E. Shamir and H.-U. Simon), *Journal of the ACM*, Vol.46, No.5, p. 684–719, 1999.
- [13] Finite-time Analysis of the Multi-armed Bandit Problem, (with P. Auer and N. Cesa-Bianchi), *Machine Learning*, special issue on Computational Learning Theory, vol. 47, pp. 235-256, Kluwer Academic Publishers.
- [14] Comparison Between the Regression Depth Method and the Support Vector Machine to Approximate the Minimum Number of Misclassifications, (with Andreas Christmann and Thorsten Joachims), *Computational Statistics*, vol. 17, p. 273-287, 2002.
- [15] The complexity of computing the MCD-estimator (with Th. Bernholt) *Theoretical Computer Science*, vol. 326(1-3), p. 383-398, 2004.

Proceedings

- [16] Separation Problems and Circular Arc Systems, (with H.-U. Simon), Proc. 16th Int. Workshop on Graph-Theoretic Concepts in Computer Science, WG 90, Berlin 1990, p. 251–259, LNCS 484, Springer Verlag, 1990.
- [17] Probably Almost Bayes Decisions, (with S. Pölt and H.-U. Simon), Proc. 4th Workshop on Computational Learning Theory (COLT '91, Santa Cruz), p. 88-94, Morgan Kaufmann, 1991.
- [18] PAB-Decisions for Boolean and Real-Valued Features, (with S. Anoulova, S. Pölt and H.-U. Simon), Proc. 5th Workshop on Computational Learning Theory, COLT '92, Pittsburgh, p. 353–362, ACM Press, 1992.
- [19] Finding Maximum Convex Polygons, Proc. Fund. Comp. Th. (FCT '93), p. 234–243, LNCS 710, Springer Verlag, 1993. (Also TR-428, University of Dortmund, 1993)
- [20] Approximations with Axis-Aligned Rectangles, (with K.-U. Höffgen, H. Lefmann and T. Łuczak), Proc. Fund. Comp. Th. (FCT '93), p.244–255, LNCS 710, Springer Verlag, 1993. (Also TR-458, University of Dortmund, 1993.)
- [21] Learning Unions of Convex Polygons, Computational Learning Theory: Proc. EuroCOLT '93, p. 61–68, Clarendon Press, Oxford, 1994. (Also TR-514, University of Dortmund, 1993.)
- [22] More or Less Efficient Agnostic Learning of Convex Polygons, Proc. 8th Conference on Computational Learning Theory (COLT '95, Santa Cruz), p. 337–344, ACM Press, 1995. (Also Technischer Bericht, University of Dortmund, 1995.)
- [23] Noise-Tolerant Learning near the Information-Theoretic Bound, (with N. Cesa-Bianchi, E. Dichterman and H.-U. Simon), Proc. 28th Annual ACM Symposium on Theory of Computing, (STOC'96, Philadelphia), p. 141–150.

- [24] Randomized Hypotheses and Minimum Disagreement Hypotheses for Learning with Noise, (with N. Cesa-Bianchi, E. Shamir and H.-U. Simon), *Computational Learning Theory: Proc. EuroCOLT '97*, LNAI 1208, Springer Verlag, p. 119–133, 1997.
- [25] Finite-time Upper Bounds for the Multiarmed Bandit Problem with Bounded Rewards, (with N. Cesa-Bianchi), *Proc. 15th International Conference on Machine Learning (ICML98)* p. 100–108, 1998.
- [26] The Complexity of the MCD-Problem, (with T. Bernholt), *Proceedings of the 33rd Symposium on the Interface of Computing Science and Statistics (Interface 2001)*, Costa Mesa, June 2001.
- [27] Predicting Protein Secondary Structure with Markov Models, (with S. Larsen, C. Thomsen) *Proceedings of 29th Annual Conference of the German Classification Society (GfKI 2004)*, 2004.
- [28] Single, Complete, Probability Spaces Consistent With EPR-Bohm-Bell Experimental Data (with David Avis, Astrid Hilbert and Andrei Khrennikov) *Proceedings of Foundations of Probability and Physics-5, AIP Conference Proceedings, Volume 1101, pp. 294-301 (2009)*.
- [29] From Frustration to Success: A Case-Study in Advanced Design-Build Experiences (With Thomas Bolander and Thomas Kjærgård Hansen), *Proceedings of 7th International CDIO Confernce*, Copenhagen, June 2011.
- [30] CDIO Projects in DTU's B.Eng. in IT Study Program, (with Jens Sparsø, Thomas Bolander, Thomas Kjærgård Hansen, Stig Høgh, Mads Nyborg, Christian W. Probst, Edward Todirica) *Proceedings of 7th International CDIO Confernce*, Copenhagen, June 2011.
- [31] Edge-matching Problems with Rotations, (with Martin Ebbesen and Carsten Witt) *Proceedings of the 18th International Symposium on Fundamentals of Computation Theory*, Lecture Notes in Computer Science 6914 Springer, pp.114-125, 2011.
- [32] Visual time series analysis (with Astrid Hilbert), *Proceedings of 20th International Conference on Computational Statistics (COMPSTAT 2012)*, pp. 225-234, <http://www.compstat2012.org/>
- [33] Genetic Algorithms for the Detection of Structural Breaks in Time Series (with Benjamin Doerr, Astrid Hilbert and Carsten Witt) *Proceedings of Genetic and Evolutionary Computation Conference 2013 (GECCO 2013)*.

Technical Reports

- [34] Two-dimensional Separation Problems, (with H.-U. Simon), TR-04/1990, University of Saarbrücken, 1990.

- [35] Approximations with Axis-Aligned Rectangles, (with K.-U. Höffgen), TR-455, University of Dortmund, 1993.
- [36] Learning and Relative Dimension, (with K.-U. Höffgen and H. Lefmann), TR-505, University of Dortmund, 1993.
- [37] Complete account of randomness in the EPR-Bohm-Bell experiment (with D. Avis, A. Hilbert, A. Khrennikov) *arXiv.org*, <http://arxiv.org/abs/0806.0445>, 2008.

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- [38] *Computational Learning Theory, Proceedings of the 4th European Conference, EuroCOLT'99*, (Editor, with H.-U. Simon), LNCS 1572, Springer Verlag 1999.
- [39] *Algorithmisches Lernen*, Leitfaden der Informatik, Teubner, 1999.
- [40] *Einführung in die Graphikprogrammierung mit JAVA-Swing*, Programmers Choice Serie, Addison-Wesley, 2001.
- [41] *An Introduction to Graphical User Interfaces with Java Swing* Pearson Education, 2005.

Other

- [42] Paare ohne Infimum in den rekursiv aufzählbaren Turing und wtt-Graden, Masters thesis, University of Bielefeld, 1983.
- [43] Some Results on Recursively Enumerable Degrees of Weak Reducibilities, PhD thesis, University of Bielefeld, 1986.
- [44] Über Algorithmisches Lernen, Habilitation thesis, University of Dortmund, 1994.