Bibliographie

[1] Bibliographie générale

[Aha, 1992] Aha, D. (1992). Tolerating noisy, irrelevant and novel attributes in instance-based learning algorithms. *International Journal of Man-Machine Studies*, 36 :267–287.

[Ausiello et al., 1999] Ausiello, G., Crescenzi, P., Gambosi, G., Kann, V., Spaccamela, A. M., and Protasi, M. (1999). *Complexity and Approximation. Combinatorial Optimization Problems and their Approximability Properties.* Springer-Verlag, Berlin.

[Balcazar et al., 2000] Balcazar, J. L., Castro, J., and Guijarro, D. (2000). A new abstract combinatorial dimension for exact learning via queries. In *Proceedings of the 13 th International Conference on Computational Learning Theory*, pages 248–254.

[Bauer and Kohavi, 1999] Bauer, E. and Kohavi, R. (1999). An empirical comparison of voting classification algorithms : Bagging, boosting, and variants. *Machine Learning Journal*, 36 :105–139.

[Blum and Langley, 1997] Blum, A. and Langley, P. (1997). Selection of relevant features and examples in machine learning. *Artificial Intelligence*, 97 :245–272.

[Blum and Rivest, 1988] Blum, A. and Rivest, R. L. (1988). Training a 3-node neural network is NP-complete. In *Proceedings of the 1 st Workshop on Computational Learning Theory*, pages 8–14.

[Blumer et al., 1987] Blumer, A., Ehrenfeucht, A., Haussler, D., and Warmuth, M. K. (1987). Occam's razor. *Information Processing Letters*, pages 377–380.

[Board and Pitt, 1992] Board, A. and Pitt, L. (1992). On the necessity of Occam Algorithms. *Theoretical Computer Science*, pages 157–184.

[Boucheron, 1992] Boucheron, S. (1992). *Théorie de l'apprentissage, de l'approche formelle aux enjeux cognitifs.* Hermes.

[Breiman, 1996] Breiman, L. (1996). Bias, Variance and Arcing classifiers. Technical Report 460, UC Berkeley.

[Breiman et al., 1984] Breiman, L., Freidman, J. H., Olshen, R. A., and Stone, C. J. (1984). *Classification and Regression Trees.* Wadsworth.

[Brodley, 1993] Brodley, C. (1993). Addressing the selective superiority problem : automatic algorithm/model class selection. In *Proceedings of the 10 th International Conference on Machine Learning*, pages 17–24.

[Cardie, 1993] Cardie, C. (1993). Using decision trees to improve case-based learning. In *Proceedings of the 10 th International Conference on Machine Learning*, pages 25–32.

[Charikar et al., 2000] Charikar, M., Guruswami, V., Kumar, R., Rajagopalan, S., and Sahai, A. (2000). Combinatorial feature selection problems. In *Proceedings of the 41 th IEEE Symposium on the Foundations of Computer Science*, pages 631–642.

[Clark and Boswell, 1991] Clark, P. and Boswell, R. (1991). Rule induction with CN2 : some recent improvements. In *Proceedings of the 6 th European Working Session in Learning*, pages 151–161.

[Comaniciu and Meer, 1997] Comaniciu, D. and Meer, P. (1997). Robust analysis of feature spaces : Color image segmentation. In *Proc. of IEEE International Conference on Computer Vision and Pattern Recognition*, pages 750–755.

[Cover and Hart, 1967] Cover, T. and Hart, P. (1967). Nearest neighbor pattern classification. *IEEE Trans. on Information Theory*, 13 :21–27.

[Devroye et al., 1996] Devroye, L., Györfi, L., and Lugosi, G. (1996). *A Probabilistic Theory of Pattern Recognition.* Springer.

[Domingos, 1998] Domingos, P. (1998). Occam's two razors : the sharp and the blunt. In *Proceedings of the 4th International Conference on Knowledge Discovery in Databases*, pages 37–43.

[Drakopoulos, 1995] Drakopoulos, J. A. (1995). Bounds on the classification error of the nearest neighbor rule. In *Proceedings of the 12 th International Conference on Machine Learning*, pages 203–208.

[Dzeroski et al., 1992] Dzeroski, S., Muggleton, S., and Russel, S. (1992). Pac-learning of determinate logic programs. In *Proceedings of the 5 th International Conference on Computational Learning Theory*, pages 128–137.

[Egan, 1975] Egan, J. P. (1975). *Signal detection theory and ROC analyses.* Academic press.

[Ehrenfeucht et al., 1988] Ehrenfeucht, A., Haussler, D., Kearns, M. J., and Valiant, L. (1988). A general lower bound on the number of examples needed for learning. In *First Workshop on Computational Learning Theory*, pages 110–120.

[Feige and Kilian, 1996] Feige, U. and Kilian, J. (1996). Zero knowledge and the chromatic number. In *Proceedings of the 11 th IEEE International Conference on Computational Complexity*, pages 278–287.

[Felzenszwalb and Huttenlocher, 1998] Felzenszwalb, P. F. and Huttenlocher, D. P. (1998). Image segmentation using local variations. In *Proc. of IEEE International Conference on Computer Vision and Pattern Recognition*, pages 98–104.

[Fiorio and Gustedt, 1996] Fiorio, C. and Gustedt, J. (1996). Two linear time Union-Find strategies for image processing. *Theoretical Computer Science*, 154 :165–181.

[Freund and Schapire, 1996] Freund, Y. and Schapire, R. E. (1996). Experiments with a new boosting algorithms. In *Proceedings of the 13 th International Conference on Machine Learning.*

[Freund and Schapire, 1997] Freund, Y. and Schapire, R. E. (1997). A Decision-Theoretic generalization of on-line learning and an application to Boosting. *Journal of Computer and System Sciences*, 55 :119–139.

[Friedman et al., 2000] Friedman, J., Hastie, T., and Tibshirani, R. (2000). Additive Logistic Regression : a Statistical View of Boosting. *Annals of Statistics*, 28 :337–374.

[Garey and Johnson, 1979] Garey, M. and Johnson, D. (1979). *Computers and Intractability, a guide to the theory of NP-Completeness*. Bell Telephone Laboratories.

[Gates, 1972] Gates, G. W. (1972). The Reduced Nearest Neighbor rule. *IEEE Trans. on Information Theory*, 18 :431–433.

[Hancock et al., 1996] Hancock, T., Jiang, T., Li, M., and Tromp, J. (1996). On approximating decision lists and trees. *Information and Computation*, 126 :114–122.

[Hart, 1968] Hart, P. E. (1968). The Condensed Nearest Neighbor rule. *IEEE Trans. on Information Theory*, 14 :515–516.

[Höffgen and Simon, 1992] Höffgen, K.-U. and Simon, H. (1992). Robust trainability of single neurons. In *Proceedings of the 5 th International Conference on Computational Learning Theory*.

[Hyafil and Rivest, 1976] Hyafil, L. and Rivest, R. (1976). Constructing optimal decision trees is NP-complete. *Information Processing Letters*, 5 :15–17.

[Jackson, 1997] Jackson, J. (1997). An efficient membership-query algorithm for learning dnf with respect to the uniform distribution. *Journal of Computer and System Sciences*, pages 414–440.

[John et al., 1994] John, G. H., Kohavi, R., and Pfleger, K. (1994). Irrelevant features and the subset selection problem. In *Proceedings of the 11 th International Conference on Machine Learning*, pages 121–129.

[Karpinski and Macintyre, 1997] Karpinski, M. and Macintyre, A. (1997). Ploynomial bounds for VC dimension of sigmoidal and general Pfaffian neural networks. *Journal of Computer and System Sciences*, 54 :169–176.

[Kearns, 1988] Kearns, M. (1988). Thoughts on Hypothesis Boosting. ML class project.

[Kearns et al., 1987] Kearns, M., Li, M., Pitt, L., and Valiant, L. (1987). On the learnability of boolean formulae. In *Proceedings of the 19 th ACM Symposium on the Theory of Computing*, pages 285–295.

[Kearns and Mansour, 1996] Kearns, M. and Mansour, Y. (1996). On the boosting ability of top-down decision tree learning algorithms. *Proceedings of the* 28^{th} *Annual ACM Symposium on the Theory of Computing*, pages 459–468.

[Kearns and Valiant, 1989] Kearns, M. and Valiant, L. (1989). Cryptographic limitations on learning boolean formulae and finite automata. *Proceedings of the 21 th ACM Symposium on the Theory of Computing*, pages 433–444.

[Kearns and Mansour, 1998] Kearns, M. J. and Mansour, Y. (1998). A Fast, Bottom-up Decision Tree Pruning algorithm with Near-Optimal generalization. In *Proceedings of the 15 th International Conference on Machine Learning*, pages 269–277.

[Kearns and Vazirani, 1994] Kearns, M. J. and Vazirani, U. V. (1994). *An Introduction to Computational Learning Theory*. M.I.T. Press.

[Kietz and Dzeroski, 1994] Kietz, J. and Dzeroski, S. (1994). Inductive logic programming and learnability. *Sigart Bulletin*, 5 :22–32.

[Klivans and Servedio, 2001] Klivans, A. R. and Servedio, R. (2001). Learning DNF in time $2^{\tilde{O}(n^{\frac{1}{3}})}$. In *Proceedings of the 33 th ACM Symposium on the Theory of Computing*, pages 258–265.

[Kohavi and Sommerfield, 1998] Kohavi, D. and Sommerfield, D. (1998). Targetting Business users with Decision Table Classifiers. In *Proceedings of the 4^{th} International Conference on Knowledge Discovery in Databases*, pages 249–253.

[Kohavi, 1994] Kohavi, R. (1994). Feature subset selection as search with probabilistic estimates. In *AAAI Fall Symposium on Relevance*.

[Kohavi and Brodley, 2000] Kohavi, R. and Brodley, C. (2000). Peeling the Onion. Talk at KDD'2000.

[Koiran and Sontag, 1998] Koiran, P. and Sontag, E. D. (1998). Vapnik-Chervonenkis dimension of recurrent neural networks. *Discrete Applied Mathematics*, 86 :63–80.

[Kubat et al., 1998] Kubat, M., Holte, R. C., and Matwin, S. (1998). Machine Learning for the detection of oil spills in satellite radar images. *Machine Learning Journal*, 30 :195–215.

[McDiarmid, 1998] McDiarmid, C. (1998). Concentration. In Habib, M., McDiarmid, C., Ramirez-Alfonsin, J., and Reed, B., editors, *Probabilistic Methods for Algorithmic Discrete Mathematics*, pages 1–54. Springer Verlag.

[Pillaipakkamnatt and Raghavan, 1994] Pillaipakkamnatt, K. and Raghavan, V. (1994). On the limits of proper learnability of subclasses of DNF formulae. In *Proceedings of the 7 th International Conference on Computational Learning Theory*, pages 118–129.

[Provost and Fawcett, 1997] Provost, F. and Fawcett, T. (1997). Analysis and visualization of classifier performance : comparison under imprecise class and cost distributions. In *Proceedings of the 3^{rd} International Conference on Knowledge Discovery in Databases*, pages 43–48.

[Provost and Fawcett, 1998] Provost, F. and Fawcett, T. (1998). Robust classification systems for imprecise environments. In *Proceedings of the 15^{th} National Conference on Artificial Intelligence (AAAI)*, pages 706–713.

[Provost et al., 1998] Provost, F., Fawcett, T., and Kohavi, R. (1998). The case against accuracy estimation for comparing induction algorithms. In *Proceedings of the 15 th International Conference on Machine Learning*, pages 445–453.

[Quinlan, 1986] Quinlan, J. R. (1986). Induction of Decision Trees. *Machine Learning Journal*, 1 :81–106.

[Quinlan, 1994] Quinlan, J. R. (1994). *C4.5 : programs for machine learning*. Morgan Kaufmann.

[Rissanen, 1986] Rissanen, J. (1986). Stochastic complexity and modeling. *Annals of statistics*, 14 :1080–1100.

[Rivest, 1987] Rivest, R. (1987). Learning decision lists. *Machine Learning Journal*, 2 :229–246.

[Schapire et al., 1998] Schapire, R. E., Freund, Y., Bartlett, P., and Lee, W. S. (1998). Boosting the Margin : a new explanation for the effectiveness of Voting methods. *Annals of statistics*, 26 :1651–1686.

[Schapire and Singer, 1998] Schapire, R. E. and Singer, Y. (1998). Improved boosting algorithms using confidence-rated predictions. In *Proceedings of the 11 th International Conference on Computational Learning Theory*, pages 80–91.

[Shi and Malik, 2000] Shi, J. and Malik, J. (2000). Normalized cuts and image segmentation. *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 22 :888–905.

[Skalak, 1994] Skalak, D. B. (1994). Prototype and feature selection by sampling and random mutation hill-climbing algorithms. In *Proceedings of the 11 th International Conference on Machine Learning*, pages 293–301.

[Valiant, 1984] Valiant, L. G. (1984). A theory of the learnable. *Communications of the ACM*, 27 :1134–1142.

[Valiant, 1985] Valiant, L. G. (1985). Learning disjunctions of conjunctions. In *Proceedings of the 9 th International Joint Conference on Artificial Intelligence*, pages 560–566.

[Vapnik, 1998] Vapnik, V. (1998). *Statistical Learning Theory*. John Wiley.

[Vapnik and Chervonenkis, 1971] Vapnik, V. and Chervonenkis, A. (1971). On the uniform convergence of relative frequencies to their probabilities. *Theory Probab. Appl.*, 16 :264–280.

[Wenocur and Dudley, 1981] Wenocur, R. and Dudley, R. (1981). Some special vapnik-chervonenkis classes. *Discrete Mathematics*, pages 313–318.

[Wertheimer, 1938] Wertheimer, M. (1938). Laws of organization in perceptual forms. In Ellis, W. B., editor, *A Sourcebook of Gestalt Psychology*, pages 71–88. Harcourt, Brace and Company.

[Wilson and Martinez, 2000] Wilson, D. and Martinez, T. (2000). Reduction techniques for instance-based learning algorithms. *Machine Learning Journal*, 38 :257–286.

[Xu et al., 1998] Xu, Y., Olman, V., and Uberbacher, E. C. (1998). A Segmentation algorithm for noisy images : design and evaluation. *Pattern Recognition Letters*, 19 :1213–1224.

[Zhu and Yuille, 1996] Zhu, S.-C. and Yuille, A. (1996). Region competition : unifying snakes, region growing, and bayes/MDL for multiband image segmentation. *IEEE Trans. on Pattern Analysis and Machine Intelligence*, 18 :884–900.

[2] Bibliographie personnelle

1

[Fiorio and Nock, 1998] Fiorio, C. and Nock, R. (1998). Image segmentation using a Generic, Fast and Non-parametric approach. In *Proceedings of the 10 th IEEE International Conference on Tools with Artificial Intelligence*, pages 450–458. IEEE CS Press.

2

[Fiorio and Nock, 2000a] Fiorio, C. and Nock, R. (2000a). A concentration-based adaptive approach to region merging of optimal time and space complexities. In *Proceedings of the 9 th British Machine Vision Conference*, pages 775–784. IEE/SPR Press.

3

[Fiorio and Nock, 2000b] Fiorio, C. and Nock, R. (2000b). Sorted region merging to maximize test reliability. In *Proceedings of the 7 th IEEE International Conference on Image Processing*, pages 808–811. IEEE SP Press.

4

[Gascuel et al., 1998] Gascuel, O., Bouchon-Meunier, B., Caraux, G., Gallinari, P., Guermeur, A. G. Y., Lechevallier, Y., Marsala, C., Miclet, L., Nicolas, J., Nock, R., Ramdani, M., Sebag, M., Tallur, B., Venturini, G., and Vitte, P. (1998). Twelve numerical, symbolic and hybrid supervised classification methods. *International Journal on Pattern Recognition and Artificial Intelligence*, 12 :517–572.

5

[Jappy and Nock, 1998] Jappy, P. and Nock, R. (1998). PAC-learning conceptual graphs. In *Proceedings of the 6 th International Conference on Conceptual Structures*, number 1453 in Lecture Notes in Computer Science, pages 303–315. Springer-Verlag.

6

[Jappy et al., 1996] Jappy, P., Nock, R., and Gascuel, O. (1996). Negative robust learning results for horn clause programs. In *Proceedings of the 13 th International Conference on Machine Learning*, pages 258–265. Morgan Kauffman.

7

[Nock, 1999] Nock, R. (1999). Complexity in the case against accuracy : when building one function-free horn clause is as hard as any. In *Proceedings of the 10th International Conference on Algorithmic Learning Theory*, number 1720 in Lecture Notes in Artificial Intelligence, pages 182–193. Springer-Verlag.

8

[Nock, 2001b] Nock, R. (2001b). Fast and Reliable Color Region Merging inspired by Decision Tree Pruning. In *Proc. of IEEE International Conference on Computer Vision and Pattern Recognition*, pages 271–276. IEEE CS Press.

9

[Nock, 2002a] Nock, R. (2002a). A Fast, Reliable Region-Merging like approach handling occlusions. In *Proceedings of the 9 th IEEE International Conference on Image Processing*. IEEE SP Press. accepted.

10

[Nock, 2002b] Nock, R. (2002b). Improving noise handling in probabilistic sorted color region merging. In *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*. IEEE SP Press. accepted.

11

[Nock, 2002c] Nock, R. (2002c). Inducing interpretable Voting classifiers without trading accuracy for simplicity : theoretical results, approximation algorithms, and experiments. *Journal of Artificial Intelligence Research*, to appear.

12

[Nock and Esfandiari, 1998] Nock, R. and Esfandiari, B. (1998). Oracles and assistants : machine learning applied to network supervision. In *Canadian Artificial Intelligence Conference*, number 1418 in Lecture Notes in Computer Science, pages 86–98. Springer-Verlag.

13

[Nock and Gascuel, 1995] Nock, R. and Gascuel, O. (1995). On learning decision committees. In *Proceedings of the 12 th International Conference on Machine Learning*, pages 413–420. Morgan Kaufmann.

14

[Nock and Jappy, 1999a] Nock, R. and Jappy, P. (1999a). Decision Tree based induction of Decision Lists. *International Journal on Intelligent Data Analysis*, 3 :227–240.

15

[Nock and Jappy, 1999b] Nock, R. and Jappy, P. (1999b). A "Top-down and Prune" Induction Scheme for constrained Decision Committees. In *Proceedings of the 3rd European Conference on Knowledge Discovery in Databases*, number 1704 in Lecture Notes in Artificial Intelligence, pages 27–38. Springer-Verlag.

16

[Nock and Jappy, 1998a] Nock, R. and Jappy, P. (1998a). Function-free horn clauses are hard to approximate. In *Proceedings of the 8 th International Conference on Inductive Logic Programming*, number 1446 in Lecture Notes in Artificial Intelligence, pages 195–204. Springer-Verlag.

17

[Nock and Jappy, 1998b] Nock, R. and Jappy, P. (1998b). On the power of decision lists. In *Proceedings of the 15 th International Conference on Machine Learning*, pages 413–420. Morgan Kaufmann.

18

[Nock et al., 1998] Nock, R., Jappy, P., and Sallantin, J. (1998). Generalized Graph Colorability and Compressibility of Boolean Formulae. In *Proceedings of the 9 th International Symp. on Algorithms and Computation*, number 1533 in Lecture Notes in Artificial Intelligence, pages 237–246. Springer-Verlag.

19

[Nock and Sebban, 2000a] Nock, R. and Sebban, M. (2000a). A new prototype weighting and selection scheme for instance based learning algorithms. In *Proc. of the 13 th International FLAIRS Symposium*, pages 71–75. AAAI Press.

20

[Nock and Sebban, 2000b] Nock, R. and Sebban, M. (2000b). Sharper bounds for the hardness of prototype and feature selection. In *Proceedings of the 11th International Conference on Algorithmic Learning Theory*, number 1968 in Lecture Notes in Artificial Intelligence, pages 224–237. Springer-Verlag.

21

[Nock and Sebban, 2001a] Nock, R. and Sebban, M. (2001a). Advances in adaptive prototype weighting and selection. *International Journal on Artificial Intelligence Tools*, 10 :137–156.

22

[Nock and Sebban, 2001b] Nock, R. and Sebban, M. (2001b). A bayesian boosting theorem. *Pattern Recognition Letters*, 22 :407–412.

23

[Nock and Sebban, 2001c] Nock, R. and Sebban, M. (2001c). An improved bound on the finite sample risk of the nearest neighbor rule. *Pattern Recognition Letters*, 22 :413–419.

24

[Nock and Sebban, 2001d] Nock, R. and Sebban, M. (2001d). Prototype selection using boosted nearest-neighbors. In Liu, H. and Motoda, H., editors, *Instance Selection and Construction for Data Mining*, pages 301–318. Kluwer Academic Publishers.

25

[Nock et al., 2000] Nock, R., Sebban, M., and Bernard, D. (2000). A symmetric nearest-neighbor learning rule. In *Proceedings of the European Workshop on Case-Based Reasoning*, number 1898 in Lecture Notes in Computer Science, pages 222–233. Springer-Verlag.

26

[Nock et al., 1999] Nock, R., Sebban, M., and Jappy, P. (1999). Experiments on a representation-independent "top-down and prune" induction scheme. In *Proceedings of the 3rd European Conference on Knowledge Discovery in Databases*, number 1704 in Lecture Notes in Artificial Intelligence, pages 214–222. Springer-Verlag.

27

[Quinqueton et al., 1997] Quinqueton, J., Esfandiari, B., and Nock, R. (1997). Chronicle learning and agent-oriented techniques for network management and supervision. In *International Conference on Intelligent Networks and Intelligence in Networks (Invited paper)*, pages 131–146. Chapmann & Hall.

28

[Sebban and Nock, 1999] Sebban, M. and Nock, R. (1999). Contribution of boosting in wrapper models. In *Proceedings of the 3rd European Conference on Knowledge Discovery in Databases*, number 1704 in Lecture Notes in Artificial Intelligence, pages 214–222. Springer-Verlag.

29

[Sebban and Nock, 2000a] Sebban, M. and Nock, R. (2000a). Combining feature and prototype pruning by uncertainty minimization. In *Proceedings of the 16 th International Conference on Uncertainty in Artificial Intelligence*, pages 533–540. Morgan Kauffman.

30

[Sebban and Nock, 2000b] Sebban, M. and Nock, R. (2000b). Contribution of dataset reduction techniques to tree-simplification and knowledge discovery. In *Proceedings of the 4th European Conference on Knowledge Discovery in Databases*, number 1910 in Lecture Notes in Artificial Intelligence, pages 44–53. Springer-Verlag.

31

[Sebban and Nock, 2000c] Sebban, M. and Nock, R. (2000c). Prototype selection as an information-preserving problem. In *Proceedings of the 17 th International Conference on Machine Learning*, pages 855–862. Morgan Kauffman.

32

[Sebban and Nock, 2000d] Sebban, M. and Nock, R. (2000d). Prototype selection based on Information Theory. In *Proc. of the Canadian Artificial Intelligence Conference*, number 1822 in Lecture Notes in Computer Science, pages 90–101. Springer-Verlag.

33

[Sebban and Nock, 2001] Sebban, M. and Nock, R. (2001). Improvement of nearest-neighbor classifiers via support vector machines. In *Proc. of the 14 th International FLAIRS Symposium*, pages 113–117. AAAI Press.

34

[Sebban and Nock, 2002] Sebban, M. and Nock, R. (2002). A hybrid filter/wrapper approach of feature selection using information theory. *Pattern Recognition*, 35 :835–846.

35

[Sebban et al., 2001a] Sebban, M., Nock, R., Chauchat, J.-H., and Rakotomalala, R. (2001a). Impact of learning set quality and size on decision tree performances. *Int. Journal of Computers, Systems and Signals*, pages 85–105.

36

[Sebban et al., 2001b] Sebban, M., Nock, R., and Lallich, S. (2001b). Boosting Neighborhood-Based Classifiers. In *Proceedings of the 18 th International Conference on Machine Learning*, pages 505–512. Morgan Kauffman.

[3] Bibliographie personnelle (autres)

37

[Jappy and Nock, 1996] Jappy, P. and Nock, R. (1996). Non-apprenabilité robuste de clauses de Horn. In *Proceedings of Journées Françaises d'Apprentissage et de Validation, JAVA'96*, pages 221–232.

38

[Nock, 1998] Nock, R. (1998). *Apprentissage de formules logiques de taille limitée : aspects théoriques, méthodes et résultats.* PhD thesis, Université Montpellier II. Disponible comme Rapport de Recherche RR-LIRMM-98014.

39

[Nock, 2001a] Nock, R. (2001a). Complexité et Classification : quelques aspects algorithmiques de problèmes de classification. Prix Simon Régnier de la Société Francophone de Classification.