Alphabetic Listing (with Cite Key)

Version of Tue 19-Jul-94 10:57

References

[Allison.92] L. Allison et al. Finite-state models in the alignment of macromolecules. *SIAM Journal on Computing*, 35:77–89, 1992.

[AAAI84] American Association for Artificial Intelligence. *Fourth National Conference on Artificial Intelligence*, Austin, Texas, 1984.

[AAAI86] American Association for Artificial Intelligence. *Fifth National Conference on Artificial Intelligence*, Philadelphia, 1986.

[AAAI87] American Association for Artificial Intelligence. *Sixth National Conference on Artificial Intelligence*, Seattle, 1987.

[AAAI88] American Association for Artificial Intelligence. *Seventh National Conference on Artificial Intelligence*, Saint Paul, Minnesota, 1988.

[AAAI90] American Association for Artificial Intelligence. *Eighth National Conference on Artificial Intelligence*, Boston, Massachusetts, 1990.

[AAAI91] American Association for Artificial Intelligence. *Seventh Conference on Uncertainty in Artificial Intelligence*, Anaheim, CA, 1991.

[AAAI92] American Association for Artificial Intelligence. *Tenth National Conference on Artificial Intelligence*, San Jose, California, 1992.

[AAAI93] American Association for Artificial Intelligence. *Eleventh National Conference on Artificial Intelligence*, Washington, D.C., 1993.

[Almond.AISIV] R.G. Almond, J.M. Bradshaw, and D. Madigan. Reuse and sharing of graphical belief network components. In Cheeseman and Oldford [AISIV], pages 113–122.

[Altman.UAI94] Russ B. Altman, Cheng C. Chen, William B. Poland, and Jaswinder P. Singh. Sub-linear time probabilistic inference. In de Mantaras and Poole [UAI94]. Home page[1].

[Aczel66] J. Aczel. *Lectures on Functional Equations and Their Applications*. Academic Press, New York, 1966.

[Aczel.75] J. Aczél and Z. Daróczy. *On Measures of Information and Their Characteristics*. Academic Press, 1975.

[Adams.66] E.W. Adams. Probability and the logic of conditionals. In J. Hintikka and P. Suppes, editors, *Aspects of Inductive Logic*, pages 265–316. North-Holland, Amsterdam, 1966.

[Adams.75] E.W. Adams. *The Logic of Conditionals*. Reidel, Boston, 1975.

[KR2] J.A. Allen, R. Fikes, and E. Sandewall, editors. *Principles of Knowledge Representation and Reasoning: Proceedings of the Second International Conference*. Morgan Kaufmann, San Mateo, CA, 1991.

[Andersen.etal.89] Stig K. Andersen, Finn V. Jensen, Kristian G. Olesen, and Frank Jensen. HUGIN—a shell for building Bayesian

[1] Homepages/Altman.UAI94.html

belief universes for expert systems. Technical report, Department of Mathematics and Computer Science, Aalborg University, Denmark, 1989.

[Aleliunas88] R. Aleliunas. A summary of a new normative theory of probabilistic logic. In Shachter et al. [UAI4], pages 199–206.

[Amemiya.85] T. Amemiya. *Advanced Econometrics.* Harvard University Press, Cambridge, MA, 1985.

[Adams.UAI94] Greg Adams, Beth Millar, Eric Neufeld, and Tim Philip. Ending-based strategies for part-of-speech tagging. In de Mantaras and Poole [UAI94]. Home page[2].

[NIPS87] D.Z. Anderson, editor. *Neural Information Processing Systems (NIPS)*, 1987.

[Andersen.etal.IJCAI89] S.K. Andersen, K.G. Olesen, F.V. Jensen, and F. Jensen. HUGIN—a shell for building Bayesian belief universes for expert systems. In IJCAI89 [IJCAI89], pages 1080–1085.

[Agogino87] A.M. Agogino and A. Rege. IDES: Influence diagram based expert system. *SIAM Journal on Computing*, 8:227–233, 1987.

[Abram.stegu] M. Abramowitz and I.A. Stegun. *Handbook of Mathematical Functions.* Dover Publications, New York, 1972.

[Agogino88b] A. Agogino, S. Srinivas, and K. Schneider. Multiple sensor expert system for diagnostic reasoning, monitoring and control of mechanical systems. *SIAM Journal on Computing*, 2:165–185, 1988.

[MUNIN87] S. Andreassen, M. Woldbye, B. Falck, and S.K. Andersen. MUNIN: A causal probabilistic network for interpretation of electromyographic findings. In *Proceedings of the Tenth International Joint Conference on Artificial Intelligence,* Milan, Italy, pages 366–372. Morgan Kaufmann, San Mateo, CA, August 1987.

[Bacchus.90] F. Bacchus. *Representing and Reasoning with Probabilistic Knowledge.* MIT Press, 1990.

[2]Homepages/Adams.UAI94.html

[Bayes58] T. Bayes. An essay towards solving a problem in the doctrine of chances. *SIAM Journal on Computing*, 46:293–298, 1958. Reprint of original work of 1763.

[Ben.bassat78b] M. Ben-Bassat. ϵ-equivalence of feature selection rules. *SIAM Journal on Computing*, 24:769–772, 1978.

[Ben.bassat78] M. Ben-Bassat. Myopic policies in sequential classification. *SIAM Journal on Computing*, 27:170–178, 1978.

[Ben.bassat80b] M. Ben-Bassat. Multimembership and multiperspective classification: Introduction, applications, and a Bayesian model. *SIAM Journal on Computing*, 10:331–336, 1980.

[Basse.ben] M. Basseville and A. Benveniste. Sequential detection of abrupt changes in spectral characteristics of noise. *IEEE Transactions on Information Theory*, 29(5), 1983.

[Ben.Bassat80] M. Ben-Bassat, V.K. Carlson, V.K. Puri, M.D. Davenport, J.A. Schriver, M.M. Latif, R. Smith, E.H. Lipnick, and M.H. Weil. Pattern-based interactive diagnosis of multiple disorders: The MEDAS system. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2:148–160, 1980.

[Bahl.etal.assp] L.R. Bahl, P.F. Brown, P.V. de Souza, and R.L. Mercer. A tree-based langauge model for natural language speech recognition. *IEEE Trans. on AS and SP*, 37(7):1001–1008, 1989.

[BayesS4] J.M. Bernardo, J.O. Berger, A.P. Dawid, and A.F.M. Smith, editors. *Bayesian Statistics 4.* Oxford University Press, 1992.

[Ben.Bassat84] M. Ben-Bassat and D. Teeni. Human-oriented information acquistion in sequential pattern classification: Part 1. single membership classification. *SIAM Journal on Computing*, 14:131–138, 1984.

[Barron.cover.it] A.R. Barron and T.M. Cover. Minimum complexity density estimation. *IEEE Transactions on Information Theory*, 37(4), 1991.

[NewS] R.A. Becker, J.M. Chambers, and A.R. Wilks. *The New S Language*. Wadsworth & Brooks/Cole, Pacific Grove, California, 1988.

[Bayarri.BayesS3] M.J. Bayarri and M.H. DeGroot. Gaining weight: A Bayesian approach. In Bernardo and DeGroot [BayesS3], pages 25–44.

[BayesS3] J.M. Bernardo and M.H. DeGroot, editors. *Bayesian Statistics 3*. Oxford University Press, 1988.

[Ben-david.jacovi.COLT93] S. Ben-David and M. Jacovi. On learning in the limit and non-uniform (ϵ, δ)-learning. In Pitt [COLT93], pages 209–217.

[BayesS2] J.M. Bernardo, M.H. DeGroot, D.V. Lindley, and A.F.M. Smith, editors. *Bayesian Statistics 2*. Elsevier Science Publishers B.V., 1985.

[Blumer.etal.IPL] A. Blumer, A. Ehrenfeucht, D. Haussler, and M.K. Warmuth. Occam's razor. *Information Processing Letters*, 24:377–380, 1987.

[Berger.85] J.O. Berger. *Statistical Decision Theory and Bayesian Analysis*. Springer-Verlag, New York, 1985.

[Bertsekas.87] D.P. Bertsekas. *Dynamic Programming: Deterministic ansd Stochastic Models*. Prentice-Hall, Englewood Cliffs, New Jersey, 1987.

[Berger.as] J. O. Berger. Statistical analysis and the illusion of objectivity. *American Scientist*, 76(March-April):159–165, 1988.

[Breiman.friedman.jasa] L. Breiman and J.H. Friedman. Estimating optimal transformations for multiple regression and correlation. *Journal of the American Statistical Association*, 80:580–597, 1985.

[Cart] L. Breiman, J.H. Friedman, R.A. Olshen, and C.J. Stone. *Classification and Regression Trees*. Wadsworth, Belmont, 1984.

[Bleistein.handel] N. Bleistein and R.A. Handelsman. *Asymptotic Expansions of Integrals*. Dover Publications, New York, 1986.

[BendHaj93] Kamila Bendová and Petr Hájek. Possibilistic logic as a tense logic. In *Proceedings of QUARDET'93*, Barcelona, 1993.

[UAI6] Piero P. Bonissone, Max Henrion, Laveen N. Kanal, and John F. Lemmer, editors. *Uncertainty in Artificial Intelligence 6*. North-Holland, Amsterdam, 1991.

[EPRITurbine92] J. Breese, E. Horvitz, M. Peot, R. Gay, and G. Quentin. Automated decision-analytic diagnosis of thermal performance in gas turbines. In *Proceedings of the International Gas Turbine and Aeroengine Congress and Exposition,* Cologne, Germany. American Society of Mechanical Engineers, June 1992.

[Box.hunter.stuart] G.E.P. Box, W.G. Hunter, and J.S. Stuart. *Statistics for Experimenters: An Introduction to Design, Data Analysis and Model Building*. Wiley & Sons, 1978.

[Billard.UAI94] Edward A. Billard. Learning in multi-level stochastic games with delayed information. In de Mantaras and Poole [UAI94]. Home page[3].

[Bahl.etal.pami] L.R. Bahl, F. Jelinek, and R.L. Mercer. A maximum likelihood approach to continuous speech recognition. *IEEE Transactions on Pattern Analysis and Machine Intelligenc*, 5(2):179–190, 1983.

[Binford87] T.O. Binford, T.S. Levitt, and W.B. Mann. Bayesian inference in model-based machine vision. In Kanal et al. [UAI3], pages 73–96.

[Blythe.UAI94] J.S. Blythe. Planning with external events. In de Mantaras and Poole [UAI94]. Home page[4].

[Buntine.niblett.mlj] W.L. Buntine and T. Niblett. A further comparison of splitting rules for decision-tree induction. *Machine Learning*, 7, 1992.

[UAI90] Piero Bonissone, editor. *Proceedings of the Sixth Conference on Uncertainty in Artificial Intelligence*, Cambridge, Massachusetts, 1990.

[3] Homepages/Billard.UAI94.html
[4] Homepages/Blythe.UAI94.html

[Bordley.bayesgroup] Robert Bordley. Review essay: Bayesian group decision theory. In B. Grofman and G. Owen, editors, *Information Pooling and Group Decision Making*, pages 49–68. JAI Press Inc., London, 1986.

[BouckaertP.UAI94] Remco R. Bouckaert. Properties of Bayesian belief network learning algorithms. In de Mantaras and Poole [UAI94]. Home page[5].

[BouckaertS.UAI94] Remco R. Bouckaert. A stratified simulation scheme for inference in Bayesian belief networks. In de Mantaras and Poole [UAI94]. Home page[6].

[Breese87c] J.S. Breese. An expert system for decision analysis in securities trading. In *Proceedings of the First Annual Conference on Expert Systems in Business,* New York, pages 19–26, October 1987.

[Breese87b] J.S. Breese. *Knowledge Representation and Inference in Intelligent Decision Systems.* PhD thesis, Department of Engineering-Economic Systems, Stanford University, Stanford, CA, 1987.

[Bretthorst.MAXENT93] G.L. Bretthorst. An introduction to model selection using probability theory as logic. In Heidbreder [MAXENT93]. Proceedings, at Santa Barbara, 1993.

[Buchanan84] B.G. Buchanan and E.H. Shortliffe, editors. *Rule-Based Expert Systems: The MYCIN Experiments of the Stanford Heuristic Programming Project.* Addison–Wesley, Reading, MA, 1984.

[Beinlich89] I.A. Beinlich, H.J. Suermondt, R.M. Chavez, and G.F. Cooper. The ALARM monitoring system: A case study with two probabilistic inference techniques for belief networks. In *Proceedings of the Second European Conference on Artificial Intelligence in Medicine,* London. Springer Verlag, Berlin, August 1989.

[Box.tiao] G.E.P Box and G.C. Tiao. *Bayesian Inference in Statistical Analysis.* Addison-Wesley, Reading, Massachusetts, 1973.

[5]Homepages/BouckaertP.UAI94.html
[6]Homepages/BouckaertS.UAI94.html

[Buntine.IJCAI89] W.L. Buntine. A critique of the Valiant model. In IJCAI89 [IJCAI89], pages 837–842.

[Buntine.UAI3] W.L. Buntine. Decision tree induction systems: a Bayesian analysis. In Kanal et al. [UAI3].

[Buntine.AAAI90] W.L. Buntine. Myths and legends in learning classification rules. In AAAI90 [AAAI90], pages 736–742.

[Buntine.IJCAI91] W.L. Buntine. Classifiers: A theoretical and empirical study. In IJCAI91 [IJCAI91].

[Buntine.AISIII] W.L. Buntine. Learning classification trees. In Hand [AISIII], pages 182–201.

[Buntine.amai] W.L. Buntine. Modelling default and likelihood reasoning as probabilistic reasoning. *Annals of Mathematics and Artificial Intelligence*, 4:25–68, 1991.

[Buntine.plaus] W.L. Buntine. Some properties of plausible reasoning. In D'Ambrosio et al. [UAI91].

[Buntine.thesis] W.L. Buntine. *A Theory of Learning Classification Rules.* PhD thesis, University of Technology, Sydney, 1991. Written in 1990, awarded in 1992.

[Buntine.UAI91] W.L. Buntine. Theory refinement of Bayesian networks. In D'Ambrosio et al. [UAI91]. Home page[7].

[Buntine.jair] W. Buntine. Operations for learning using graphical models. *Journal of Artificial Intelligence Research*, 1994. to appear.

[Buntine.lwgm] W.L. Buntine. Learning with graphical models. Technical Report FIA-94-02, Artificial Intelligence Research Branch, NASA Ames Research Center, 1994. Home page[8].

[Boulton.69] D.M. Boulton and C.S. Wallace. The information content of a multistate distribution. *SIAM Journal on Computing,* 23:269–278, 1969.

[7]Homepages/Buntine.UAI91.html
[8]Homepages/Buntine.lwgm.html

[Wallace.snob] D.M. Boulton and C.S. Wallace. A program for numerical classification. *The Computer Journal*, 13(1):63–69, 1970.

[Wallace.70] D.M. Boulton and C.S. Wallace. A program for numerical classification. *The Computer Journal*, 13(1):63–69, 1970.

[Boulton.75] D.M. Boulto and C.S. Wallace. An information measure for single link classification. *The Computer Journal*, pages 236–238, August 1975.

[Buntine.weigend.bbp] W.L. Buntine and A.S. Weigend. Bayesian back-propagation. *Complex Systems*, 5(1):603–643, 1991.

[Buntine.weigend.2nd] W.L. Buntine and A.S. Weigend. Computing second derivatives in feed-forward networks: a review. *IEEE Transactions on Neural Networks*, 5(3), 1994.

[Besag.aism] J. Besag, J. York, and A. Mollie. Bayesian image restoration with two applications in spatial statistics. *Ann. Inst. Statist. Math.*, 43(1):1–59, 1991.

[LeCam90] L. Le Cam. Maximum likelihood: An introduction. *International Statistical Review*, 58(2):153–171, 1990.

[Casella.berger.jasa] G. Casella and R.L. Berger. Reconciling Bayesian and frequentist evidence in the one-sided testing problem (with discussion). *Journal of the American Statistical Association*, 82:106–111, 1987.

[Casella.berger.90] G. Casella and R.L. Berger. *Statistical Inference*. Wadsworth & Brooks/Cole, Belmont, CA, 1990.

[Cinlar.sp] E. Çinlar. *Introduction to Stochastic Processes*. Prentice Hall, 1975.

[Chin.cooper.UAI3] H.L. Chin and G.F. Cooper. Bayesian belief network inference using simulation. In Kanal et al. [UAI3].

[Chin87] H.L. Chin and G.F. Cooper. Bayesian belief network inference using simulation. In Kanal et al. [UAI3], pages 129–148.

[Chavez88] R.M. Chavez and G.F. Cooper. A randomized approximation algorithm for probabilistic inference on Bayesian belief networks. *SIAM Journal on Computing*, 20:661–685, 1990.

[Chavez89] R.M. Chavez and G.F. Cooper. An empirical evaluation of a randomized algorithm for probabilistic inference. In Henrion et al. [UAI5], pages 191–207.

[CarpDor.86] B.E. Carpenter and R.W. Doran, editors. *AM Turing's Ace Report of 1946 and other papers*. MIT Press, 1986.

[Chang.Fung.UAI6] K.-C. Chang and R. Fung. Refinement and coarsening of Bayesian networks. In Bonissone et al. [UAI6]. Home page[9].

[Charniak91b] E. Charniak and R. Goldman. A probabilistic model of plan recognition. In AAAI91 [AAAI91], pages 160–165.

[Cooper.UAI91] G.F. Cooper and E.H. Herskovits. A Bayesian method for the induction of probabilistic networks from data. In D'Ambrosio et al. [UAI91], pages 86–94.

[StatsinS] J.M. Chambers and T.J. Hastie, editors. *Statistical Models in S*. Wadsworth & Brooks/Cole, Pacific Grove, California, 1992.

[Cooper.mlj] G.F. Cooper and E.H. Herskovits. A Bayesian method for the induction of probabilistic networks from data. *Machine Learning*, 9(4):309–348, 1992.

[Charniak.aimag] E. Charniak. Bayesian networks without tears. *AI Magazine*, 12(4):50–63, 1991.

[Cheeseman.IJCAI85] P.C. Cheeseman. In defence of probability. In IJCAI85 [IJCAI85], pages 1002–9.

[Cheeseman.ci] P.C. Cheeseman. An inquiry into computer understanding. *Computational Intelligence*, 4(1):58–66, 1988.

[Cheeseman.cmdtf] P.C. Cheeseman. On finding the most probable model. In Shrager and Langley [ShraLang.90].

[Chou.pami] P.A. Chou. Optimal partitioning for classification and regression trees. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 13(4), 1991.

[9] Homepages/Chang.Fung.UAI94.html

[CHRISTIANSON92A] Bruce Christianson. Automatic hessians by reverse accumulation. *IMA Journal of Numerical Analysis*, 12:135–150, 1992.

[Chow.liu.it] C.K. Chow and C.N. Liu. Approximating discrete probability distributions with dependence trees. *IEEE Transactions on Information Theory*, 14:462–467, 1968.

[Clemen.90] R.T. Clemen. *Making Hard Decisions*. PWS-KENT Publishing, Boston, 1990.

[Charniak85] E. Charniak and D. McDermott. *An Introduction to Artificial Intelligence*. Addison–Wesley, Reading, Mass., 1985.

[AISIV] P. Cheeseman and R.W. Oldford, editors. *Selecting Models from Data: Artificial Intelligence and Statistics IV*. Springer-Verlag, 1994.

[Cooper84] G.F. Cooper. *NESTOR: A Computer-based Medical Diagnostic Aid that Integrates Causal and Probabilistic Knowledge*. PhD thesis, Medical Computer Science Group, Stanford University, Stanford, CA, November 1984. Report HPP-84-48.

[Cooper86] G.F. Cooper. A diagnostic method that uses causal knowledge and linear programming in the application of Bayes' formula. *SIAM Journal on Computing*, 22:223–237, 1986.

[Cooper87b] G.F. Cooper. An algorithm for computing probabilistic propositions. In Kanal et al. [UAI3], pages 3–14.

[Cooper90b] G. Cooper. Computational complexity of probabilistic inference using Bayesian belief networks (Research note). *SIAM Journal on Computing*, 42:393–405, 1990.

[Cooper87a] G.F. Cooper. The computational complexity of probabilistic inference using Bayesian belief networks. *Artificial Intelligence*, 42:393–405, 1990.

[Cowell.BayesS4] R.G. Cowell. BAIES—a probabilistic expert system shell with qualitative and quantitative learning. In Bernardo et al. [BayesS4], pages 595–600.

[Cox46] R. Cox. Probability, frequency and reasonable expectation. *SIAM Journal on Computing*, 14:1–13, 1946.

[Chan.shachter.UAI92] B.Y. Chan and R.D. Shachter. Structural controllability and observability in influence diagrams. In Dubois et al. [UAI92], pages 25–32.

[Cheeseman.AAAI88] P. Cheeseman, M. Self, J. Kelly, W. Taylor, D. Freeman, and J. Stutz. Bayesian classification. In AAAI88 [AAAI88], pages 607–611.

[Cover.book] T.M. Cover and J.A. Thomas. *Elements of Information Theory*. John Wiley & Sons, 1991.

[Cheng.statsci] B. Cheng and D.M. Titterington. Neural networks: A review from a statistical perspective. *Statistical Science*, 9:2–54, 1994. with comments and rejoinder.

[Craven.wahba.79] P. Craven and G. Wahba. Smoothing noisy data with spline functions: Estimating the correct degree of smoothing by the method of generalized cross-validation. *Numerical Math.*, 31:377–403, 1979.

[Logan85] Logan D. *The Value of Probability Assessment*. PhD thesis, Department of Engineering-Economic Systems, Stanford University, March 1985.

[DAmbrosio91] B. D'Ambrosio. Local expression languages for probabilistic dependence. In D'Ambrosio et al. [UAI91], pages 95–102.

[Dambrosio.UAI94] B. D'Ambrosio. Spi in large bn2o networks. In de Mantaras and Poole [UAI94]. Home page[10].

[Dasarathy.91] B.V. Dasarathy, editor. *Nearest Neighbor Pattern Classification Techniques*. IEEE Computer Society Press, 1991.

[Dawid.70s] A. P. Dawid. Properties of diagnostic data distributions. *Biometrics*, 32:647–658, 1976.

[Dawid79] A. Dawid. Conditional independence in statistical theory. *SIAM Journal on Computing*, 41:1–31, 1979.

[10] Homepages/Dambrosio.UAI94.html

[Dechter.survey] R. Dechter. Constraint networks. In Shapiro [EncycAI], pages 276–285.

[Degroot.70] M.H. DeGroot. *Optimal Statistical Decisions.* McGraw-Hill, 1970.

[Devroye.87] L. Devroye. *A Course in Density Estimation.* Birkhauser, Boston, 1987.

[Devroye.pami] L. Devroye. Automatic pattern recognition: A study of the probability of error. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 10(4), 1988.

[DeFinetti37] B. de Finetti. La prévision: See lois logiques, ses sources subjectives. *SIAM Journal on Computing*, 7:1–68, 1937. Translated in Kyburg and Smokler, 1964.

[DeFinetti70] B. de Finetti. *Theory of Probability.* Wiley and Sons, New York, 1970.

[DeFinetti77] B. de Finetti. Probabilities of probabilities: A real problem or a misunderstanding. In A. Aykac and C. Brumet, editors, *New Developments in the Applications of Bayesian Methods*, pages 1–10. North-Holland, New York, 1977.

[Diaconis.para] P. Diaconis and D. Freedman. On inconsistent Bayes estimates of location. *Annals of Statistics*, 14(1):68–87, 1986.

[Dambrosio87] B. D'Ambrosio, M.R. Fehling, S. Forrest, P. Raulefs, and M. Wilber. Realtime process management for materials composition in chemical manufacturing. *SIAM Journal on Computing*, pages 80–92, Summer 1987.

[Dagum.galper.ksl93] P. Dagum, A. Galper, E. Horvitz, and A. Seiver. Uncertain reasoning and forecasting. *International Journal of Forecasting*, 1994. submitted.

[Duda.hart.73] R.O. Duda and P.E. Hart. *Pattern Classification and Scene Analysis.* John Wiley, New York, 1973.

[Dagum.horvitz.UAI92] P. Dagum and E. Horvitz. Reformulating inference problems through selective conditioning. In Dubois et al. [UAI92], pages 49–54.

[Duda76] R. Duda, P. Hart, and N. Nilsson. Subjective Bayesian methods for rule-based inference systems. *SIAM Journal on Computing*, 45:1075–1082, 1976.

[Dietterich.arcs] T.G. Dietterich. Machine learning. *Annual Review of Computer Science*, 4:255–306, 1990.

[Devijuer.kittler.82] P.A. Devijuer and J. Kittler. *Pattern Recognition: a statistical approach.* Prentice Hall, 1982.

[Dawid.lauritzen.anstat] A.P. Dawid and S.L. Lauritzen. Hyper Markov laws in the statistical analysis of decomposable graphical models. *Annals of Statistics*, 21(3):1272–1317, 1993.

[Dempster.etal.EM] A.P. Dempster, N.M. Laird, and D.B. Rubin. Maximum likelihood from incomplete data via the EM algorithm. *Journal of the Royal Statistical Society B*, 39:1–38, 1977.

[UAI94] R. Lopez de Mantaras and D. Poole, editors. *Uncertainty in Artificial Intelligence: Proceedings of the Tenth Conference*, Seattle, WA, 1994. Home page[11].

[Dubois.prade.ci] D. Dubois and H. Prade. On fuzzy syllogisms. *Computational Intelligence*, 4(2):171–179, 1988.

[Druzdzel93] M. Druzdzel and H. Simon. Causality in Bayesian belief networks. In *Proceedings of Ninth Conference on Uncertainty in Artificial Intelligence,* Washington, DC, pages 3–11. Morgan Kaufmann, July 1993.

[UAI91] B.D. D'Ambrosio, P. Smets, and P.P. Bonissone, editors. *Uncertainty in Artificial Intelligence: Proceedings of the Seventh Conference*, Los Angeles, CA, 1991.

[Dsz.jrssb] A.P. Dawid, M. Stone, and J.V. Zidek. Marginalization paradoxes in Bayesian and structural inference. *Journal of the Royal Statistical Society B*, 35:189–233, 1973.

[Dean91] T. Dean and M. Wellman. *Planning and Control.* Morgan Kaufmann, San Mateo, CA, 1991.

[11] UAI94.html

[Dean.wellman.91] T.L. Dean and M.P. Wellman. *Planning and Control.* Morgan Kaufmann, San Mateo, California, 1991.

[UAI92] D. Dubois, M.P. Wellman, B.D. D'Ambrosio, and P. Smets, editors. *Uncertainty in Artificial Intelligence: Proceedings of the Eight Conference*, Stanford, CA, 1992.

[Edwards56] W. Edwards, ed. Special issue on probabilistic inference. *SIAM Journal on Computing*, 7, 1956.

[Edwards.jrssb] D. Edwards. Hierarchical interaction models. *Journal of the Royal Statistical Society B*, 51(3), 1989.

[Efron.siam] B. Efron. Computers and the theory of statistics: thinking the unthinkable. *SIAM Review*, 21(4):460–480, 1979.

[Elsaesser87] C. Elsaesser. Explanation of probabilistic inference. In Kanal et al. [UAI3], pages 387–400.

[Efron.tibsh.science] B. Efron and R. Tibshirani. Statistical data analysis in the computer age. *Science*, 253:390–395, 1991.

[Efron.tibsh.93] B. Efron and R.J. Tibshirani. *An Introduction to the Bootstrap.* Chapman & Hall, New York, 1993.

[Fung.crawford.AAAI90] R.M. Fung and S.L. Crawford. A system for induction of probabilistic models. In AAAI90 [AAAI90], pages 762–779.

[Fung89] R Fung and K. Chang. Weighing and integrating evidence for stochastic simulation in Bayesian networks. In Henrion et al. [UAI5], pages 209–219.

[Fine.73] T.L. Fine. *Theories of Probability.* Academic Press, 1973.

[Freeman.mcs] T.G. Freeman. Selecting the best model to fit data. *Mathematics and Computers in Simulation*, 27:137–140, 1985.

[French.BayesS2] S. French. Group consensus probability distributions: A critical survey. In Bernardo et al. [BayesS2], pages 183–202.

[Fryback78] D.G. Fryback. Bayes' theorem and conditional nonindependence of data in medical diagnosis. *SIAM Journal on Computing*, 11:423–434, 1978.

[Frydenberg.scand] M. Frydenberg. The chain graph Markov property. *Scandinavian Journal of Statistics*, 1991.

[AIaS] W.A. Gale, editor. *Artificial Intelligence and Statistics.* Addison-Wesley, 1986.

[Gorry68] G.A. Gorry and G.O. Barnett. Experience with a model of sequential diagnosis. *SIAM Journal on Computing*, 1:490–507, 1968.

[KAKBS] B. Gaines and J. Boose, editors. *Knowledge Acquisition for Knowledge-Based Systems.* Academic Press, London, 1988.

[GoldmanBoddy.UAI94] Robert P. Goldman and Mark S. Boddy. Epsilon-safe planning. In de Mantaras and Poole [UAI94]. Home page[12].

[Geman.nc] S. Geman, E. Bienenstock, and René Doursat. Neural networks and the bias/variance dilemma. *Neural Computation*, 4:1–58, 1992.

[ADoA91] Andreas Griewank and George F. Corliss, editors. *Automatic Differentiation of Algorithms: Theory, Implementation, and Application*, Breckenridge, Colorado, January 6–8 1991. SIAM.

[Gilks.jrssb] W.R. Gilks, D.G. Clayton, D.J. Spiegelhalter, N.G. Best, A.J. McNeil, L.D. Sharples, and A.J. Kirby. Modelling complexity: applications of Gibbs sampling in medicine. *Journal of the Royal Statistical Society B*, 55:39–102, 1993.

[Gratch.AAAI92] J. Gratch and D. DeJong. COMPOSER: A probabilsitic solution to the utility problem in speed-up learning. In AAAI92 [AAAI92], pages 235–240.

[GeigerPhD] D. Geiger. *Graphoids: A Qualitative Framework for Probabilistic Inference.* PhD thesis, Computer Science Department, University of California, January 1990.

[12] Homepages/GoldmanBoddy.UAI94.html

[Geiger.UAI92] D. Geiger. An entropy-based learning algorithm of Bayesian conditional trees. In Dubois et al. [UAI92], pages 92–97.

[GeigerUAI92] D. Geiger. An entropy-based learning algorithm of Bayesian conditional trees. In Dubois et al. [UAI92], pages 92–97.

[GeigerEncyclo92] D. Geiger. Probabilistic networks. In Shapiro [EncycAI], pages 1201–1209.

[Geman.book] D. Geman. Random fields and inverse problems in imaging. In P.L. Hennequin, editor, *École d'Été de Probabilités de Saint-Flour XVIII - 1988*. Springer-Verlag, Berlin, 1990. In Lecture Notes in Mathematics, Volume 1427.

[Geman.geman.pami] S. Geman and D. Geman. Stochastic relaxation, Gibbs distributions, and the Bayesian relation of images. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 6, 1984.

[GeigerHeckerman90b] D. Geiger and D. Heckerman. Separable and transitive graphoids. In Bonissone [UAI90], pages 538–545.

[GeigerUAI91] D. Geiger and D. Heckerman. Advances in probabilistic reasoning. In D'Ambrosio et al. [UAI91], pages 118–126.

[Geiger93SimNet] D. Geiger and D. Heckerman. Inference algorithms for similarity networks. In Heckerman and Mamdani [UAI93], pages 326–334.

[GH.UAI94] D. Geiger and D. Heckerman. Learning gaussian networks. In de Mantaras and Poole [UAI94]. Home page[13].

[Gelfand.jasa] A.E. Gelfand, S.E. Hills, A. Racine-Poon, and A.F.M. Smith. Illustration of Bayesian inference in normal data models using Gibbs sampling. *Journal of the American Statistical Association*, 85(412):972–985, 1990.

[Gorry73] G.A. Gorry, J.P. Kassirer, A. Essig, and W.B. Schwartz. Decision analysis as the basis for computer-aided management of acute renal failure. *SIAM Journal on Computing*, 55:473–484, 1973.

[13] Homepages/GH.UAI94.html

[Gill.murray.etal.81] Philip E. Gill, Walter Murray, and Margaret H. Wright. *Practical Optimization.* Academic Press, San Diego, 1981.

[Gold.67] E.M. Gold. Language identification in the limit. *Information and Control*, 10:447–474, 1967.

[Gold.78] E.M. Gold. Complexity of automaton identification from given data. *Information and Control*, 37:302–320, 1978.

[G92Phd] M. Goldszmidt. *Qualitative probabilities: A normative framework for commonsense reasoning.* PhD thesis, Department of Computer Science, University of California, Los Angeles, 1992. TR-190, Cognitive Systems Lab.

[Good50] I.J. Good. *Probability and the Weighing of Evidence.* Hafners, New York, 1950.

[Good52] I.J. Good. Rational decisions. *SIAM Journal on Computing*, 14:107–114, 1952.

[Good61] I.J. Good. A causal calculus (I). *SIAM Journal on Computing*, 11:305–318, 1961. Also in I.J. Good, *Good Thinking: The Foundations of Probability and Its Applications,* pages 197–217. University of Minnesota Press, Minneapolis, MN, 1983.

[Good61b] I.J. Good. A causal calculus (II). *SIAM Journal on Computing*, 12:43–51, 1961. Also in I.J. Good, *Good Thinking: The Foundations of Probability and Its Applications,* pages 197–217. University of Minnesota Press, Minneapolis, MN, 1983.

[Good62] I.J. Good. Subjective probability as the measure of a nonmeasureable set. In *Logic, Methodology, and Philosophy of Science: Proceedings of the 1960 International Congress.* Stanford University Press, 1962. Also in I.J. Good, *Good Thinking: The Foundations of Probability and Its Applications,* pages 319–329. University of Minnesota Press, Minneapolis, MN, 1983.

[Good77] I.J. Good. Dynamic probability, computer chess, and the measurement of knowledge. In E.W. Elcock and Michie

D., editors, *Machine Intelligence*, pages 139–150. Wiley and Sons, New York, 1977.

[Good] I.J. Good. *The Goodbook.* University of Minnesota Press, Minnesota, 1983.

[Gorry73a] G.A. Gorry. Computer-assisted clinical decision making. *SIAM Journal on Computing*, 12:45–51, 1973.

[Geiger88] D. Geiger and J. Pearl. On the logic of causal models. In Shachter et al. [UAI4], pages 3–14.

[GeigerPear90.Automated] Dan Geiger and Judea Pearl. Logical and algorithmical properties of independence and their application to bayesian networks. *Annals of Mathematics and Artificial Intelligence*, 2:165–178, 1990.

[Moises.cons] M. Goldszmidt and J. Pearl. Deciding consistency of databases containing defeasible and strict information. In Henrion et al. [UAI5].

[Goldszmidt92] M. Goldszmidt and J. Pearl. Reasoning with qualitative probabilities can be tractable. In Dubois et al. [UAI92], pages 112–120.

[Goldszmidt92b] M. Goldszmidt and J. Pearl. System-z^+: A formalism for reasoning with variable-strength defaults. In AAAI92 [AAAI92], pages 399–404.

[Geiger.AAAI90] D. Geiger, A. Paz, and J. Pearl. Learning causal trees from dependence information. In AAAI90 [AAAI90], pages 770–771.

[Grosof85] B. Grosof. Evidential confirmation as transformed probability. In Kanal and Lemmer [UAI1], pages 153–166.

[Grosof86c] B. Grosof. Nonmonotonic reasoning in probabilistic reasoning. In Kanal and Lemmer [UAI2], pages 237–250.

[Geissman.aie] J.R. Geissman and R.D. Schultz. Verification and validation of expert systems. *AI Expert*, 3(2):26–33, 1988.

[MAXENT90] W.T. Grandy, Jr. and L. Schlick, editors. *Maximum Entropy and Bayesian Methods.* Kluwer, 1990.

[Gilks.etal.stat] W.R. Gilks, A. Thomas, and D.J. Spiegelhalter. A language and program for complex Bayesian modelling. *The Statistician*, 1993.

[Golub.loan.2nd] G.H. Golub and C.F. Van Loan. *Matrix Computations.* Johns Hopkins University Press, Baltimore, second edition, 1989.

[Geiger.verma.networks] D. Geiger, T. Verma, and J. Pearl. Identifying independence in Bayesian networks. *Networks*, 20:507–534, 1990.

[Georgeff.84] M.P. Georgeff and C.S. Wallace. *Advances in Artificial Intelligence*, chapter A general selection criterion for inductive inference, pages 219–228. North-Holland, 1984.

[Wallace.85] M.P. Georgeff and C.S. Wallace. Minimum information estimation of structure. In T. O'Shea, editor, *Advances in Artificial Intelligence.* Elsevier, 1985.

[Genest.zidek] C. Genest and J.V. Zidek. Combining probability distributions: A critique and an annotated bibliography. *Statistical Science*, 1(1):114–148, 1986.

[HajekAR] Petr Hájek. On logics of approximate reasoning. *Neural Network Word*, (6):733–744, 1993.

[Habbema76] J.D.F. Habbema. Models for diagnosis and detection of combinations of diseases. In F.T. de Dombal and F. Gremy, editors, *Decision Making and Medical Care*, pages 399–411. North-Holland, New York, 1976.

[Hacking75] I. Hacking. *The Emergence of Probability.* Cambridge University Press, Cambridge, 1975.

[HaddawyGenerating.UAI94] P. Haddawy. Generating Bayesian networks from probability logic knowledge bases. In de Mantaras and Poole [UAI94]. Home page[14].

[Hand.82] D.J. Hand. *Kernel Discriminant Analysis.* Wiley, Chichester, 1982.

[Hand.prl] D.J. Hand. Recent advances in error rate estimation. *Pattern Recognition Letters*, 4:335–346, 1986.

[14] Homepages/HaddawyGenerating.UAI94.html

[AISIII] D.J. Hand, editor. *Artificial Intelligence Frontiers in Statistics.* Chapman & Hall, London, 1991.

[Hastings.bio] W.K. Hastings. Monte Carlo sampling methods using Markov chains and their applications. *Biometrika*, 57(1):97–109, 1970.

[Haussler.aij] D. Haussler. Quantifying inductive bias: AI learning algorithms and Valiant's learning framework. *Artificial Intelligence*, 36(2):177–222, 1988.

[Haussler.ic] D. Haussler. Decision theoretic generalizations of the PAC model for neural net and other learning applications. *Information and Control*, 100(1):78–150, September 1992.

[Holtzman85] S. Holtzman and J.S. Breese. Exact reasoning about uncertainty: On the design of expert systems for decision support. In Kanal and Lemmer [UAI1], pages 339–345.

[HB.UAI94] D. Heckerman and J. Breese. A new look at causal independence. In de Mantaras and Poole [UAI94]. Home page[15].

[Horvitz.etal.jar] E.J. Horvitz, J.S. Breese, and M. Henrion. Decision theory in expert systems and artificial intelligence. *International Journal of Approximate Reasoning*, 2:247–302, 1988.

[Horvitz88b] E.J. Horvitz, J.S. Breese, and M. Henrion. Decision theory in expert systems and artificial intelligence. *SIAM Journal on Computing*, 2:247–302, 1988.

[Heckerman89d] D.E. Heckerman, J.S. Breese, and E.J. Horvitz. The compilation of decision models. In *Proceedings of the Fifth Workshop on Uncertainty in Artificial Intelligence,* Windsor, ON, pages 162–173. Association for Uncertainty in Artificial Intelligence, Mountain View, CA, August 1989.

[Henrion.aimag] M. Henrion, J.S. Breese, and E.J. Horvitz. Decision analysis and expert systems. *AI Magazine*, 12(4):64–91, 1991.

[15] Homepages/HB.UAI94.html

[Horvitz.etal.jar.91] M. Henrion, J.S. Breese, and E.J. Horvitz. Decision analysis and expert systems. *International Journal of Approximate Reasoning*, 12(4):64–91, 1991.

[Henrion.Cooley.AAAI87] M. Henrion and D.R. Cooley. An experimental comparison of knowledge engineering for expert systems and for decision analysis. In AAAI87 [AAAI87], pages 471–476.

[NIPS92] S.J. Hanson, J. Cowan, and L. Giles, editors. *Advances in Neural Information Processing Systems 5 (NIPS*92).* Morgan Kaufmann, 1993.

[Horvitz89] E.J. Horvitz, G.F. Cooper, and D.E. Heckerman. Reflection and action under scarce resources: Theoretical principles and empirical study. In IJCAI89 [IJCAI89], pages 1121–1127.

[HaddawyAbstracting.UAI94] P. Haddawy and A. Doan. Abstracting probabilistic actions. In de Mantaras and Poole [UAI94]. Home page[16].

[Huber94.Automated] Marcus J. Huber, Edmund H. Durfee, and Michael P. Wellman. The automated mapping of plans for plan recognition. In de Mantaras and Poole [UAI94]. Home page[17].

[Heckerman.UAI1] D. Heckerman. Probabilistic interpretations for MYCIN's certainty factors. In Kanal and Lemmer [UAI1].

[Heckerman85b] D.E. Heckerman. Probabilistic interpretations for MYCIN's certainty factors. In Kanal and Lemmer [UAI1], pages 167–196.

[Heckerman86c] D.E. Heckerman. An axiomatic framework for belief updates. In Kanal and Lemmer [UAI2], pages 11–22.

[Heckerman.networks] D. Heckerman. Probabilistic similarity networks. *Networks*, 20:607–636, 1990.

[Heckerman88b] D.E. Heckerman. An empirical comparison of three inference methods. In Shachter et al. [UAI4], pages 283–302.

[16] Homepages/HaddawyAbstracting.UAI94.html
[17] Homepages/Huber94.Automated.html

[HeckermanPhD] D.E. Heckerman. *Probabilistic Similarity Networks*. PhD thesis, Program in Medical Information Sciences, Stanford University, Stanford, CA, June 1990. Report STAN-CS-90-1316.

[Heckerman.91] David Heckerman. *Probabilistic Similarity Networks*. MIT Press, 1991.

[Heckerman90b] D.E. Heckerman. Similarity networks for the construction of multiple-fault belief networks. In Bonissone et al. [UAI6], pages 51–64.

[Heckerman89] D.E. Heckerman. A tractable algorithm for diagnosing multiple diseases. In Henrion et al. [UAI5], pages 163–171.

[HeckermanCF92b] D. Heckerman. The certainty-factor model. In Shapiro [EncycAI], pages 131–138.

[Heckerman93CI] D. Heckerman. Causal independence for knowledge acquisition and inference. In Heckerman and Mamdani [UAI93], pages 122–127.

[MAXENT93] G. Heidbreder, editor. *Maximum Entropy and Bayesian Methods*. Kluwer Academic, 1994. Proceedings, at Santa Barbara, 1993.

[Henrion82] M. Henrion. *The Value of Knowing How Little You Know: The advantages of a probabilistic treatment of uncertainty in policy analysis*. PhD thesis, Department of Engineering and Public Policy, Carnegie Mellon University, 1982.

[Henrion86b] M. Henrion. Should we use probability in uncertain inference systems? In *Proceedings of the Cognitive Science Society Meeting,* Amherst, PA. Carnegie–Mellon, August 1986.

[Henrion87c] M. Henrion. Uncertainty in artificial intelligence: Is probability epistemologically and heuristically adequate? In J.L. Mumpower, editor, *Expert Judgment and Expert Systems*, pages 105–130. Springer-Verlag, Berlin, Heidelberg, 1987.

[Henrion.UAI2] M. Henrion. Propagating uncertainty in Bayesian networks by probabilistic logic sampling. In Kanal and Lemmer [UAI2].

[Henrion86] M. Henrion. Propagation of uncertainty by probabilistic logic sampling in Bayes' networks. In Kanal and Lemmer [UAI2], pages 149–164.

[Henrion87b] M. Henrion. Some practical issues in constructing belief networks. In Kanal et al. [UAI3], pages 161–174.

[Henrion.idbn] M. Henrion. Towards efficient inference in multiply connected belief networks. In Oliver and Smith [OlivSmit.90], pages 385–407.

[Henrion88] M. Henrion. Towards efficient probabilistic inference in multiply connected belief networks. In Oliver and Smith [OlivSmit.90], chapter 17.

[Haddawy.UAI4] P. Haddawy and A.M. Frisch. Modal logics of higher-order probability. In Shachter et al. [UAI4].

[HGC.UAI94]
D. Heckerman, D. Geiger, and D. Chickering. Learning Bayesian networks: The combination of knowledge and statistical data. In de Mantaras and Poole [UAI94]. Home page[18].

[Habbema81] J.D.F. Habbema and J. Hilden. The measurement of performance in probabilistic diagnosis IV: Utility considerations in therapeutics and prognostics. *SIAM Journal on Computing*, 20:80–96, 1981.

[Horvitz85] E.J. Horvitz and D.E. Heckerman. The inconsistent use of measures of certainty in artificial intelligence research. In Kanal and Lemmer [UAI1], pages 137–151.

[Heckerman87b] D.E. Heckerman and E.J. Horvitz. On the expressiveness of rule-based systems for reasoning under uncertainty. In AAAI87 [AAAI87], pages 121–126.

[Heckerman86d] D.E. Heckerman and E.J. Horvitz. The myth of modularity in rule-based systems. In Kanal and Lemmer [UAI2], pages 23–34.

[Heckerman90a] D.E. Heckerman and E.J. Horvitz. Problem formulation as the reduction of a decision model. In Bonissone et al. [UAI6], pages 159–170.

[18] Homepages/HGC.UAI94.html

[HajHar93] Petr Hájek and Dagmar Harmancová. A comparative fuzzy modal logic. In E.P. Klement and W. Slany, editors, *Fuzzy Logic in Artificial Intelligence*, pages 27–34, Berlin, 1993. Springer-Verlag.

[HajHarIJUFKS94] David Harmanec and Petr Hájek. A qualitative belief logics. *International Journal of Uncertainty, Fuzziness and Knewledge-Based Systems*, to appear, 1994.

[HajHarEstGarGod.UAI94] Petr Hájek, Dagmar Harmancová, Francesc Esteva, Pere Garcia, and Lluís Godo. On modal logics for qualitative possibility in a fuzzy setting. In de Mantaras and Poole [UAI94]. Home page[19].

[Horvitz.AAAI86] E.J. Horvitz, D.E. Heckerman, and C.P. Langlotz. A framework for comparing alternative formalisms for plausible reasoning. In AAAI86 [AAAI86], pages 210–214.

[Hansson.orai] O. Hansson, G. B. Holt, and A. Mayer. Toward the modeling, evaluation and optimization of search algorithms. In D. Brown and C. White, editors, *Operations Research and Artificial Intelligence*, pages 11–28. Kluwer, Boston, 1990.

[HeckermanUAI91] D. Heckerman, E. Horvitz, and B. Middleton. An approximate nonmyopic computation for value of information. In D'Ambrosio et al. [UAI91], pages 135–141.

[HeckermanVOI93] D. Heckerman, E. Horvitz, and B. Middleton. An approximate nonmyopic computation for value of information. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 15:292–298, 1993.

[HeckermanSCAMC89] D.E. Heckerman, E.J. Horvitz, and B.N. Nathwani. Update on the Pathfinder project. In *Proceedings of the Thirteenth Symposium on Computer Applications in Medical Care,* Washington, DC, pages 203–207. IEEE Computer Society Press, Silver Spring, MD, November 1989.

[19]Homepages/HajHarEstGarGod.UAI94.html

[HeckermanMIM92a] D. Heckerman, E. Horvitz, and B. Nathwani. Toward normative expert systems: Part I. The Pathfinder project. *SIAM Journal on Computing,* 31:90–105, 1992.

[Horvitz84] E.J. Horvitz, D.E. Heckerman, B.N. Nathwani, and L.M. Fagan. Diagnostic strategies in the hypothesis-directed Pathfinder system. In *Proceedings of the First Conference on Artificial Intelligence Applications,* Denver, CO, pages 630–636. IEEE Computer Society Press, Silver Spring, MD, ?? 1984.

[Horvitz86c] E.J. Horvitz, D.E. Heckerman, B.N. Nathwani, and L.M. Fagan. The use of a heuristic problem-solving hierarchy to facilitate the explanation of hypothesis-directed reasoning. In *Proceedings of Medinfo,* Washington, DC, pages 27–31. North-Holland, New York, October 1986.

[Horvitz89c] E.J. Horvitz, D.E. Heckerman, K.C. Ng, and B.N. Nathwani. Heuristic abstraction in the decision-theoretic Pathfinder system. In *Proceedings of the Thirteenth Symposium on Computer Applications in Medical Care, Washington, DC,* pages 178–182. IEEE Computer Society Press, Silver Spring, MD, 1989.

[HHV] Petr Hájek, Dagmar Harmancová, and Rineke Verbrugge. A qualitative fuzzy possibilistic logic. submitted, February 1994.

[Heckerman.UAI3] D. Heckerman and H. Jimison. A Bayesian perspective on confidence. In Kanal et al. [UAI3].

[Heckerman87a] D.E. Heckerman and H. Jimison. A perspective on confidence and its use in focusing attention during knowledge acquisition. In Kanal et al. [UAI3], pages 123–131.

[Hertz.krogh.palmer] J.A. Hertz, A.S. Krogh, and R.G. Palmer. *Introduction to the Theory of Neural Computation.* Addison-Wesley, 1991.

[Haussler.kearns.colt] D. Haussler, M. Kearns, and R.E. Schapire. Unifying bounds on the sample complexity of Bayesian learning using information theory and the VC dimension. In *COLT'91: Workshop on Computational Learning Theory*. Morgan Kaufmann, 1991.

[Haussler.kearns.shapire.mlj] D. Haussler, M. Kearns, and R. Schapire. Bounds on the sample complexity of Bayesian learning using information thjeory and the VC dimension. *Machine Learning*, 14(1):83–113, 1994.

[Hummel86] R. Hummel and M. Landy. Evidence as opinions of experts. In Kanal and Lemmer [UAI2], pages 43–53.

[Howard81] R.A. Howard and J.E. Matheson. Influence diagrams. In R.A. Howard and J.E. Matheson, editors, *Readings on the Principles and Applications of Decision Analysis*, volume II, pages 721–762. Strategic Decisions Group, Menlo Park, CA, 1981.

[BlueBook] R.A. Howard and J.E. Matheson, editors. *The Principles and Applications of Decision Analysis.* Strategic Decisions Group, Menlo Park, CA, 1983.

[Howard84] R.A. Howard and J.E. Matheson, editors. *Readings on the Principles and Applications of , Decision Analysis.* Strategic Decisions Group, Menlo Park, CA, 1984.

[Heckerman86a] D.E. Heckerman and R.A. Miller. Towards a better understanding of the INTERNIST-1 knowledge base. In *Proceedings of Medinfo,* Washington, DC, pages 27–31. North-Holland, New York, October 1986.

[Hansson.etal.amai] O. Hansson and A. Mayer. Probabilistic heuristic estimates. *Annals of Mathematics and Artificial Intelligence*, 2, 1990.

[UAI93] D. Heckerman and A. Mamdani, editors. *Uncertainty in Artificial Intelligence: Proceedings of the Ninth Conference*, Washington, DC, 1993.

[HeckermanCBR92] D. Heckerman and B. Nathwani. An evaluation of the diagnostic accuracy of Pathfinder. *SIAM Journal on Computing*, 25:56–74, 1992.

[HeckermanMIM92b] D. Heckerman and B. Nathwani. Toward normative expert systems: Part II. Probability-based representations for efficient knowledge acquisition and inference. *SIAM Journal on Computing*, 31:106–116, 1992. Also in van Bemmel, J., McCray, A., editors, *Yearbook of Medical Informatics,* pages 430–440. International Medical Informatics Association, Rotterdam, The Netherlands, 1993.

[Hoffgen.FN464] K.-U. Höffgen. Learning and robust learning of product distributions. Research Report Nr. 464, revised May 1993, Fachbereich Informatik, Universität Dortmund, 1993.

[Holtzman89] S. Holtzman. *Intelligent Decision Systems.* Addison–Wesley, Menlo Park, CA, 1989.

[Horvitz86d] E.J. Horvitz. Toward a science of expert systems. In *Proceedings of the Eighteenth Symposium on the Interface of Computer Science and Statistics,* Ft. Collins, CO, pages 45–52. American Statistical Association, March 1986.

[Horvitz88a] E.J. Horvitz. Reasoning under varying and uncertain resource constraints. In AAAI88 [AAAI88], pages 111–116.

[Horvitz87c] E.J. Horvitz. Reasoning about beliefs and actions under computational resource constraints. In Kanal et al. [UAI3], pages 301–324.

[Howard66] R.A. Howard. Decision analysis: Applied decision theory. In D.B. Hertz and J. Melese, editors, *Proceedings of the Fourth International Conference on Operational Research,* Cambridge, MA, pages 55–71. International Federation of Operational Research Societies, 1966.

[Howard67] R.A. Howard. Value of information lotteries. *SIAM Journal on Computing,* SSC-3(1):54–60, 1967.

[Howard68] R.A. Howard. The foundations of decision analysis. *IEEE Transactions on Systems Science and Cybernetics*, 4:211–219, 1968.

[Howard70] R.A. Howard. Decision analysis: perspectives on inference, decision, and experimentation. *Proceedings of the IEEE*, 58(5), 1970.

[Howard70a] R.A. Howard. Decision analysis: Perspectives on inference, decision, and experimentation. *SIAM Journal on Computing*, 58:632–643, 1970.

[Howard70b] R.A. Howard. Risk preference. In R.A. Howard and J.E. Matheson, editors, *Readings on the Principles and Applications of Decision Analysis*, volume II, pages 629–663. Strategic Decisions Group, Menlo Park, CA, 1970.

[Howard71] R.A. Howard. Proximal decision analysis. *SIAM Journal on Computing*, 17, 1971.

[Howard80] R.A. Howard. On making life and death decisions. In R.C. Schwing and W.A. Albers, Jr., editors, *Societal Risk Assessment*, pages 89–113. Plenum Publishing, New York, 1980.

[Howard84b] R.A. Howard. On fates comparable to death. *SIAM Journal on Computing*, 30, April 1984.

[Howard88] R.A. Howard. Decision analysis: Practice and promise. *SIAM Journal on Computing*, 34:679–695, 1988.

[Howard88b] R.A. Howard. Uncertainty about probability: A decision-analysis perspective. *SIAM Journal on Computing*, 8:91–98, 1988.

[Howard.km] R.A. Howard. Knowledge maps. *Management Science*, 35(8):903–922, 1989.

[Howard89b] R.A. Howard. Microrisks for medical decision analysis. *SIAM Journal on Computing*, 5:357–370, 1989.

[Howard90] R. Howard. From influence to relevance to knowledge. In Oliver and Smith [OlivSmit.90], chapter 1.

[COLT88] D. Haussler and L. Pitt, editors. *COLT'88: 1988 Workshop on Computational Learning Theory*, MIT, Boston, 1988. Morgan Kaufmann.

[Halpern.rabin.aij] J.Y. Halpern and M.O. Rabin. A logic to reason about likelihood. *Artificial Intelligence*, 32:379–405, 1987.

[Hrycej.aij] T. Hrycej. Gibbs sampling in Bayesian networks. *Artificial Intelligence*, 46:351–363, 1990.

[HeckermanCF92] D. Heckerman and E. Shortliffe. From certainty factors to belief networks. *Artificial Intelligence in Medicine*, 4:35–52, 1992.

[Heckerman93QMR] D. Heckerman and M. Shwe. Diagnosis of multiple faults: A sensitivity analysis. In Heckerman and Mamdani [UAI93], pages 80–87.

[Haddawy94.Decision.Theoretic.AIPS] P. Haddawy and M. Suwandi. Decision-theoretic refinement planning using inheritance abstraction. In *Proceedings, AIPS*, June 1994.

[HS.UAI94] D. Heckerman and R. Shachter. A decision-based view of causality. In de Mantaras and Poole [UAI94]. Home page[20].

[Horvitz89d] E.J. Horvitz, H.J. Suermondt, and G.F. Cooper. Bounded conditioning: Flexible inference for decisions under scarce resources. In *Proceedings of the Fifth Workshop on Uncertainty in Artificial Intelligence,* Windsor, ON, pages 182–193. Association for Uncertainty in Artificial Intelligence, Mountain View, CA, August 1989.

[Hanson.IJCAI91] R. Hanson, J. Stutz, and P. Cheeseman. Bayesian classification with correlation and inheritance. In IJCAI91 [IJCAI91].

[UAI5] M. Henrion, R. Shachter, L.N. Kanal, and J. Lemmer, editors. *Uncertainty in Artificial Intelligence 5*. Elsevier Science Publishers, Amsterdam, 1991.

[Hornik.neurnets] K. Hornik, M. Stinchcombe, and H. White. Multilayer feedfoward networks are universal approximators. *Neural Networks*, 2:359–366, 1989.

[Hastie.ss] T. Hastie and R. Tibshirani. Generalized additive models. *Statistical Science*, 1:297–318, 1986.

[Hastie.tibsh.gam] T.J. Hastie and R.J. Tibshirani. *Generalized Additive Models*. Chapman and Hall, London, 1990.

[20]Homepages/HS.UAI94.html

[Huber.as] P.J. Huber. Projection pursuit. *Annals of Statistics*, 13:435–525, 1985.

[HaWa93] David Haussler and Manfred Warmuth. The probably approximately correct (pac) and other learning models. In A. Meyrowitz and S. Chipman, editors, *Machine Learning: Induction, Analogy and Discovery*. 1993.

[IJCAI77] IJCAI, Inc. *International Joint Conference on Artificial Intelligence*, 1977.

[IJCAI81] *International Joint Conference on Artificial Intelligence*, Vancouver, Canada, 1981.

[IJCAI83] *International Joint Conference on Artificial Intelligence*. Morgan Kaufmann, 1983.

[IJCAI85] *International Joint Conference on Artificial Intelligence*, Los Angeles, CA, 1985. Morgan Kaufmann.

[IJCAI87] *International Joint Conference on Artificial Intelligence*, Milan, 1987. Morgan Kaufmann.

[IJCAI89] *International Joint Conference on Artificial Intelligence*, Detroit, 1989. Morgan Kaufmann.

[IJCAI91] *International Joint Conference on Artificial Intelligence*, Sydney, 1991. Morgan Kaufmann.

[Izenman.jasa] A.J. Izenman. Recent developments in nonparametric density estimation. *Journal of the American Statistical Association*, 86(413):205–224, 1991.

[Jaeger.94c] M. Jaeger. A logic for default reasoning about probabilities. In de Mantaras and Poole [UAI94]. Home page[21].

[Jaeger94a] M. Jaeger. Probabilistic reasoning in terminological logics. In J. Doyle, E. Sandewall, and P. Torasso, editors, *Principles of Knowledge Representation an Reasoning: Proceedings of the Fourth International Conference (KR94)*. Morgan Kaufmann, San Mateo, CA, 1994.

[Jaynes.ssc] E.T. Jaynes. Prior probabilities. *IEEE Transactions on Systems Science and Cybernetics*, SSC-4:227–241, September 1968.

[Jaynes.well] E.T. Jaynes. The well-posed problem. *Foundations of Physics*, 3:477–493, 1973.

[Jaynes.marg] E.T. Jaynes. Marginalization and prior probabilities. In A. Zellner, editor, *Bayesian Analysis in Econometrics and Statistics*. North-Holland, Amsterdam, 1980.

[Jefferys.as] W.H. Jefferys and J.O. Berger. Ockham's razor and Bayesian analysis. *American Scientist*, 80(Jan-Feb):64–72, 1992.

[Jeffreys.61] H. Jeffreys. *Theory of Probability*. Clarendon Press, Oxford, third edition, 1961.

[Jessen.78] R.J. Jessen. *Statistical Survey Techniques*. Wiley, 1978.

[Johnson.or] D.S. Johnson and C.R. Aragon *et al.* Optimization by simulated annealing. *Operations Research*, 39(1), 1990.

[Jimison88] H.B. Jimison. Generating explanations of decision models based on an augmented representation of uncertainty. In Shachter et al. [UAI4], pages 351–365.

[Jordan.ML10] M.I. Jordan and R.I. Jacobs. Supervised learning and divide-and-conquer: A statistical approach. In ML10 [ML10], pages 159–166.

[Jensen.Jensen.UAI94] Finn V. Jensen and Frank Jensen. Optimal junction trees. In de Mantaras and Poole [UAI94]. Home page[22].

[Jensen.Jensen.Dittmer.UAI94] Frank Jensen, Finn V. Jensen, and Søren L. Dittmer. From influence diagrams to junction trees. In de Mantaras and Poole [UAI94]. Home page[23].

[Jacobs.jordan.neural.comp] R.A. Jacobs, M.I. Jordan, S.J. Nowlan, and G.E. Hinton. Adaptive mixtures of local experts. *Neural Computation*, 3(1), 1991.

[Jensen.lauritzen.olesen.90] Finn V. Jensen, Steffen L. Lauritzen, and Kristian G. Olesen. Bayesian updating in causal probabilistic networks by local computations.

[21] Homepages/Jaeger.94c.html

[22] Homepages/Jensen.Jensen.UAI94.html

[23] Homepages/Jensen.Jensen.Dittmer.UAI94.html

SIAM Journal on Computing, 4:269–282, 1990.

[Jensen.laur.csq] F.V. Jensen, S.L. Lauritzen, and K.G. Olesen. Bayesian updating in causal probabilistic networks by local computations. *Computational Statistics Quarterly*, 4:269–282, 1990.

[Jensen.olesen.networks] F.V. Jensen, K.G. Olesen, and S.K. Andersen. An algebra of Bayesian belief universes for knowledge-based systems. *Networks*, 20:637–659, 1990.

[Johnson85] R. Johnson. Independence and Bayesian updating methods. In Kanal and Lemmer [UAI1], pages 197–201.

[Jones.sibson.jrssa] M.C. Jones and R. Sibson. What is projection pursuit. *Journal of the Royal Statistical Society A*, 150:1–36, 1987.

[Santos.UAI94] Eugene Santos Jr. and Solomon Eyal Shimony. Belief updating by enumerating high-probability independence-based assignments. In de Mantaras and Poole [UAI94]. Home page[24].

[Karp.random] R.M. Karp. An introduction to randomized algorithms. Technical Report TR-90-024, International Computer Science Institute, 1947 Center Street, Berkeley, CA, 1990.

[Kruger.87] L. Krüger, L. Daston, and M. Heidelberger, editors. *The Probabilistic Revolution (2 vols)*. MIT Press, 1987.

[Keeney77] R.L. Keeney. The art of assessing multiattribute utility functions. *SIAM Journal on Computing*, 19:267–310, 1977.

[Kalagnanam88] J. Kalagnanam and M. Henrion. A comparison of decision analysis and expert rules for sequential diagnosis. In Shachter et al. [UAI4], pages 271–281.

[Kjaerulff.UAI92] U. Kjærulff. A computational scheme for reasoning in dynamic probabilistic networks. In Dubois et al. [UAI92], pages 121–129.

[24] Homepages/Santos.UAI94.html

[Kjaerulff.94c] Uffe Kjærulff. Reduction of computational complexity in Bayesian networks through removal of weak dependences. In de Mantaras and Poole [UAI94]. Home page[25].

[UAI1] L. N. Kanal and J. F. Lemmer, editors. *Uncertainty in Artificial Intelligence*. Elsevier Science Publishers, Amsterdam, 1986.

[UAI2] L. N. Kanal and J. F. Lemmer, editors. *Uncertainty in Artificial Intelligence 2*. Elsevier Science Publishers, Amsterdam, 1988.

[UAI3] L. N. Kanal, T. S. Levitt, and J. F. Lemmer, editors. *Uncertainty in Artificial Intelligence 3*. Elsevier Science Publishers, Amsterdam, 1989.

[Kim83] J.H. Kim and J. Pearl. A computational model for causal and diagnostic reasoning in inference engines. In IJCAI83 [IJCAI83], pages 190–193.

[Keeney76] R.L. Keeney and H. Raiffa. *Decisions with Multiple Objectives: Preferences and Value Tradeoffs*. Wiley and Sons, New York, 1976.

[Pr2] L.N. Kanal and A. Rosenfeld, editors. *Progress in Pattern Recognition 2*. Elsevier Science Publishers B.V., North Holland, 1985.

[Kass.Raftery.571] R.E. Kass and A.E. Raftery. Bayes factors and model uncertainty. Technical Report #571, Department of Statistics, Carnegie Mellon University, PA, 1993. Submitted to Jnl. of American Statistical Association.

[Kyburg64] H.E. Kyburg and H.E. Smokler. *Studies in Subjective Probability*. Wiley and Sons, New York, 1980.

[Kruse.91] R. Kruse, E. Schwecke, and J. Heinsohn. *Uncertainty and Vagueness in Knowledge Based Systems*. Springer-Verlag, 1991.

[Kahneman.etal] D. Kahneman, P. Slovic, and A. Tversky. *Judgement under Uncertainty: Heuristics and Biases*. Cambridge University Press, Cambridge, 1982.

[25] Homepages/Kjaerulff.94c.html

[Kahneman82] D. Kahneman, P. Slovic, and A. Tversky, editors. *Judgment Under Uncertainty: Heuristics and Biases.* Cambridge University Press, New York, 1982.

[Kahneman79] D. Kahneman and A. Tversky. Prospect theory: An analysis of decision under risk. *SIAM Journal on Computing*, 47(2):263–291, 1979.

[Kuipers.IJCAI85] B. Kuipers. The limits of qualitative simulation. In IJCAI85 [IJCAI85], pages 128–136.

[Kullback.59] S. Kullback. *Information Theory and Statistics.* John Wiley and Sons, New York, 1959.

[Kass.Wasserman.583] R.E. Kass and L. Wasserman. Formal rules for selecting prior distributions: A review and annotated bibliography. Technical Report #583, Department of Statistics, Carnegie Mellon University, PA, 1994. Submitted to Jnl. of American Statistical Association.

[Levitt90] T. Levitt, J. Agosta, and T. Binford. Model-based influence diagrams for machine vision. In Henrion et al. [UAI5], pages 371–388.

[ML5] J. Laird, editor. *Fifth International Conference on Machine Learning*, Ann Arbor, Michigan, 1988. Morgan Kaufmann.

[Laplace12] P.S. Laplace. *A Philosphical Essay on Probabilities.* Wiley and Sons, New York, 1902. Translated from the Sixth French Edition, 1812.

[Lauritzen82] S. Lauritzen. *Lectures on Contingency Tables.* University of Aalborg Press, Aalborg, Denmark, 1982.

[Lauritzen.sjs] S.L. Lauritzen. Mixed graphical association models. *Scandinavian Journal of Statistics*, 16(4):273–306, 1989.

[Lauritzen.csda] S.L. Lauritzen. The EM algorithm for graphical association models with missing data. *Computational Statistics and Data Analysis*, 1993. To appear; available as Tech. Rep. R 91-05, Institute for Electronic Systems, Aalborg University.

[Lam.UAI93] W. Lam and F. Bacchus. Using causal information and local measures to learn Bayesian networks. In Heckerman and Mamdani [UAI93], pages 243–250.

[Li.ijar.94] Z. Li and B. D'Ambrosio. Efficient inference in Bayes nets as a combinatorial optimization problem. *SIAM Journal on Computing.* To Appear.

[Laur.dawid.networks] S.L. Lauritzen, A.P. Dawid, B.N. Larsen, and H.-G. Leimer. Independence properties of directed Markov fields. *Networks*, 20:491–505, 1990.

[Lee.bayes] P.M. Lee. *Bayesian Statistics: An Introduction.* Oxford University Press, New York, 1989.

[Lelewer.hirsh.cs] D.A. Lelewer and D.S. Hirschberg. Data compression. *ACM Computing Surveys*, 19(3):261–296, 1987.

[Lindley82] D.V. Lindley. Scoring rules and the inevitability of probability. *International Statistical Review*, 50:1–26, 1982.

[Lindley86] D.V. Lindley. Reconciliation of decision analyses. *SIAM Journal on Computing*, 34:289–295, 1986.

[Ledley59] R.S. Ledley and L.B. Lusted. Reasoning foundations of medical diagnosis. *Science*, 130:9–21, 1959.

[Louchard.latouche.83] G. Louchard and G. Latouche. *Probability Theory and Computer Science.* Academic Press, London, 1983.

[NIPS90] R.P. Lippmann, J. Moody, and D.S. Touretzky, editors. *Advances in Neural Information Processing Systems 3 (NIPS*90).* Morgan Kaufmann, 1991.

[Loui87] R. Loui. *Theory and Computation of Uncertain Inference.* PhD thesis, Department of Computer Science, University of Rochester, 1987. Also available as TR-228, University of Rochester, Department ofComputer Science.

[Lapointe.UAI94] S. Lapointe and R. Proulx. Fuzzy geometric relations to represent hierarchical spatial information. In de Mantaras and Poole [UAI94]. Home page[26].

[26] Homepages/Lapointe.UAI94.html

[Spiegelhalter.jrssb] S.L. Lauritzen and D.J. Spiegelhalter. Local computations with probabilities on graphical structures and their application to expert systems. *Journal of the Royal Statistical Society B*, 50(2):240–265, 1988.

[Langlotz.aimag] C. Langlotz and E.H. Shortliffe. Logical and decision theoretic methods for planning under uncertainty. *AI Magazine*, 10(1):39–48, 1989.

[Lange.sins.compgraph] K. Lange and J.S. Sinsheimer. Normal/independent distributions and their applications in robust regression. *Journal of Computational and Graphical Statistics*, 2(2), 1993.

[Lauritzen.thiesson.ais93] S.L. Lauritzen, B. Thiesson, and D.J. Spiegelhalter. Diagnostic systems created by model selection methods — a case study. In *Fourth International Workshop on Artificial Intelligence and Stati stics*, Ft. Lauderdale, FL, 1993.

[Li.vityani.jcss] M. Li and P. Vitányi. Inductive reasoning and Kolmogorov complexity. *Journal of Computer and Systems Science*, 44(2):343–384, 1992.

[LW89] S. Lauritzen and N. Wermuth. Graphical models for associations between variables, some of which are qualitative and some quantitative. *SIAM Journal on Computing*, 17:31–57, 1989.

[Lari.csl] K. Lari and S. Young. The estimation of stochastic context-free grammars using the inside-outside algorithm. *Computer Speech and Language*, 4:35–36, 1990.

[Lari.csl2] K. Lari and S. Young. Applications of stochastic context-free grammars using the inside-outside algorithm. *Computer Speech and Language*, 5:237–57, 1991.

[Ucidata] P.M. Murphy and D.W. Aha. UCI repository of machine learning databases. Machine-readable data repository, University of California, Department of Information and Computer Science, Irvine, CA, 1992.

[Matzkevich93] I. Matzkevich and B. Abramson. Deriving a minimal I-map of a belief network relative to a target ordering of its nodes. In Heckerman and Mamdani [UAI93], pages 159–165.

[Mackay.MAXENT90] D.J.C. MacKay. Maximum entropy connections: Neural networks. In Grandy, Jr. and Schlick [MAXENT90].

[Mackay.92c] D.J.C. MacKay. The evidence framework applied to classification networks. *Neural Computation*, 4:720–736, 1992.

[Mackay.cl93] D.J.C. MacKay. Bayesian non-linear modeling for the energy prediction competition. Report Draft 1.2, Cavendish Laboratory, University of Cambridge, 1993.

[Matheson68] J.E. Matheson. The value of analysis and computation. *IEEE Transactions on Systems Science and Cybernetics*, 4:211–219, 1968.

[Matheson90] D. Matheson. Using influence diagrams to value information and control. In Oliver and Smith [OlivSmit.90], chapter 2.

[Matthies.jpl.sv] Larry Matthies. Stereo vision for planetary rovers: Stochastic modeling to near real-time implementation. Technical Report JPL D-8131, Robotics and Automation Systems Section, Jet Propulsion Laboratory, Pasadena, CA, January 1991.

[McLachlan.basford] G. J. McLachlan and K. E. Basford. *Mixture Models: Inference and Applications to Clustering.* Marcel Dekker, New York, 1988.

[Mclachlan.1992] G. McLachlan. *Discriminant Analysis and Statistical Pattern Recognition.* Wiley, New York, 1992.

[Morgan.Henrion.1990] M.G. Morgan and M. Henrion. *Uncertainty: A Guide to Dealing with Uncertainty in Quantitative Risk and Policy Analysis.* Cambridge University Press, 1990.

[Matthies.sv] L. Matthies and T. Kanade. Kalman filter-based algorithms for estimating depth from image sequences. *International Journal of Computer Vision*, 3:209–236, 1989.

[Mardia.book] K.V. Mardia, J.T. Kent, and J.M. Bibby. *Multivariate Analysis.* Academic Press, 1979.

[ML10] *Machine Learning: Proc. of the Tenth International Conference*, Amherst, Massachusetts, 1993. Morgan Kaufmann.

[ML7] *Proceedings of the Seventh International Machine Learning Workshop*, Austin, Texas, 1990. Morgan Kaufmann.

[ML8] *Eight International Conference on Machine Learning*, Evanston, IL, 1991. Morgan Kaufmann.

[ML9] *Ninth International Conference on Machine Learning*, Aberdeen, Scotland, 1992. Morgan Kaufmann.

[Mccullagh.nelder.glm] P. McCullagh and J.A. Nelder. *Generalized Linear Models.* Chapman and Hall, London, second edition, 1989.

[Moran.68] P. Moran. *An introduction to probability theory.* Oxford University Press, 1968.

[EWSL89] K. Morik, editor. *Proceedings of the Fourth European Working Session on Learning*, Montpellier, 1989. Pitman Publishing.

[Minsky.papert.72] M. Minsky and S. Papert. *Perceptrons: An Introduction to Computational Geometry.* MIT Press, second edition, 1972.

[Madigan.raftery.jasa] D. Madigan and A.E. Raftery. Model selection and accounting for model uncertainty in graphical models using occam's window. *Journal of the American Statistical Association*, 1994. To appear.

[Madigan.AISIV] D. Madigan, A.E. Raftery, J.C. York, J.M. Bradshaw, and R.G. Almond. Strategies for graphical model selection. In Cheeseman and Oldford [AISIV], pages 91–100.

[Minsky61] M. Minsky and O.G. Selfridge. Learning in random nets. In C. Cherry, editor, *Information Theory*, pages 335–347. Butterworths, London, 1961.

[Middleton91] B. Middleton, M. Shwe, D. Heckerman, M. Henrion, E. Horvitz, H. Lehmann, and G. Cooper. Probabilistic diagnosis using a reformulation of the INTERNIST-1/QMR knowledge base: Part II. Evaluation of diagnostic performance. *SIAM Journal on Computing*, 30:256–267, 1991.

[Statlog] D. Michie, D.J. Spiegelhalter, and C.C. Taylor, editors. *Machine Learning, Neural and Statistical Classification.* Ellis Horword, Hertfordshire, England, 1994.

[Musick.UAI93] R. Musick. Minimal assumption distribution propogation in belief networks. In Heckerman and Mamdani [UAI93], pages 251–258.

[Neal.aij] R.M. Neal. Connectionist learning of belief networks. *Artificial Intelligence*, 56:71–113, 1992.

[Neal.review] R.M. Neal. Probabilistic inference using Markov chain Monte Carlo methods. Technical Report CRG-TR-93-1, Dept. of Computer Science, University of Toronto, 1993.

[Nejdl.UAI94] Wolfgang Nejdl and Johann Gamper. Model-based diagnosis with qualitative temporal uncertainty. In de Mantaras and Poole [UAI94]. Home page[27].

[Nathwani90] B.N. Nathwani, D.E. Heckerman, E.J. Horvitz, and T.L. Lincoln. Integrated expert systems and videodisc in surgical pathology: An overview. *SIAM Journal on Computing*, 21:11–27, 1990.

[Nilsson.PL] N.J. Nilsson. Probabilistic logic. *Artificial Intelligence*, 28:71–87, 1986.

[NIPS93] *Advances in Neural Information Processing Systems 5 (NIPS*93).* Morgan Kaufmann, 1994.

[Norusis75] M.J. Norusis and J.A. Jacquez. Diagnosis 1: Symptom nonindependence in mathematical models for diagnosis. *Computers and Biomedical Research*, 8:156–172, 1975.

[NinoMurcia91] G. Nino-Murcia and M. Shwe. An expert system for diagnosis of sleep disorders. In M. Chase, R. Lydic, and

[27] Homepages/Nejdl.UAI94.html

C. O'Connor, editors, *Sleep Research*, volume 20, page 433. Brain Information Service, Los Angeles, CA, 1991.

[Neufeld87] E. Neufeld and D. Poole. Towards solving the multiple extension problem: Combining defaults and probabilities. In Kanal et al. [UAI3], pages 35–44.

[Neufeld.UAI4] E. Neufeld, D. Poole, and R. Aleliunas. Probabilistic semantics and defaults. In Shachter et al. [UAI4].

[Newton.raftery.jrssb] M.A. Newton and A.E. Raftery. Approximate Bayesian inference with the weighted likelihood bootstrap. *Journal of the Royal Statistical Society B*, 56(1):3–48, 1994.

[Haussler.percept] M. Opper and D. Haussler. Calculation of the learning curve of Bayes optimal classification algorithm for learning a perceptron with noise. In *COLT'91: 1991 Workshop on Computational Learning Theory*, pages 75–87. Morgan Kaufmann, 1991.

[MUNIN89] K.G. Olesen, U. Kjaerulff, F. Jensen, F.V. Jensen, B. Flack, S. Andreassen, and S.K. Andersen. A MUNIN network for the median nerve: A case study on loops. *SIAM Journal on Computing*, 3:385–404, 1989.

[Oliver.93] J.J. Oliver. Decision graphs - an extension of decision trees. In *Proceedings of the Fourth International Workshop on Artificial Intelligence and Statistics*, pages 343–350, 1993. Extended version available as TR 173, Department of Computer Science, Monash University, Clayton, Victoria 3168, AUSTRALIA.

[Olmsted83] S. Olmsted. *On representing and solving decision problems*. PhD thesis, Department of Engineering-Economic Systems, Stanford University, 1983.

[OlivSmit.90] R.M. Oliver and J.Q. Smith, editors. *Influence Diagrams, Belief Nets and Decision Analysis*. Wiley, 1990.

[Owen78a] D.L. Owen. The use of influence diagrams in structuring complex , decision problems. In R.A. Howard and J.E. Matheson, editors, *Readings on the Principles and Applications of , Decision Analysis*, volume II, chapter 38, pages 763–771. Strategic Decisions Group, Menlo Park, CA, 1978.

[Discrim.panel] Panel on Discrimination Analysis, Classification and Clustering. Discriminant analysis and clustering. *Statistical Science*, 4(1):34–69, 1989.

[Patrick.78] J. Patrick. *An Information Measure Comparative Analysis of Megalithic Geometries*. PhD thesis, Computer Science Department, Monash University, Clayton 3168 Australia, 1978.

[Pearl77] J. Pearl. An economic basis for certain methods of evaluating probabilistic forecasts. *SIAM Journal on Computing*, 10:175–183, 1978.

[Pearl78] J. Pearl. On the connection between the complexity and credibility of inferred models. *International Journal of General Systems*, 4, 1978.

[Pearl82] J. Pearl. Reverend Bayes on inference engines: A distributed hierarchical approach. In *Proceedings AAAI-82 Second National Conference on Artificial Intelligence,* Pittsburgh, PA, pages 133–136. AAAI Press, Menlo Park, CA, August 1982.

[Pearl84] J. Pearl. *Heuristics*. Addison–Wesley, Reading, Massachusetts, 1984.

[Pearl85] J. Pearl. How to do with probabilities what people say you can't. In *Proceedings of the Second Conference on Artificial Intelligence Applications,* Miami Beach, FL, pages 6–12. IEEE Computer Society Press, Silver Spring, MD, December 1985.

[Pearl85b] J. Pearl. A constraint propagation approach to probabilistic reasoning. In Kanal and Lemmer [UAI1], pages 357–369.

[Pearl86b] J. Pearl. Fusion, propagation, and structuring in belief networks. *Artificial Intelligence*, 29:241–288, 1986.

[Pearl86a] J. Pearl. On evidential reasoning in a hierarchy of hypotheses. *Artificial Intelligence*, 28:9–15, 1986.

[Pearl87b] J. Pearl. Evidential reasoning using stochastic simulation of causal models. *Artificial Intelligence*, 32:245–257, 1987.

[Pearl.88] J. Pearl. *Probabilistic Reasoning in Intelligent Systems.* Morgan Kaufmann, 1988.

[Pearl90] J. Pearl. Reasoning with belief functions: An analysis of compatibility. *SIAM Journal on Computing*, 4:363–389, 1990.

[Pearl93b] J. Pearl. From conditional oughts to qualitative decision theory. In *Proceedings of Ninth Conference on Uncertainty in Artificial Intelligence,* Washington, DC, pages 12–20. Morgan Kaufmann, July 1993.

[Pearl.UAI94] Judea Pearl. A probabilistic calculus of actions. In de Mantaras and Poole [UAI94]. Home page[28].

[Peirce56] C.S. Peirce. The probability of induction. In *The World of Mathematics, V.2*, pages 1341–1354. Simon and Shuster, New York, 1856.

[Press.88] W.H. Press, B.P. Flannery, S.A. Teukolsky, and W.T. Vetterling. *Numerical Recipes: The Art of Scientific Computing.* Cambridge University Press, Cambridge, 1986.

[Poggio.ieee] T. Poggio and F. Girosi. Networks for approximation and learning. *Proceedings of the IEEE*, 78(4):1481–1497, 1990.

[PGV90] J. Pearl, D. Geiger, and T. Verma. The logic of influence diagrams. In Oliver and Smith [OlivSmit.90], chapter 4.

[COLT93] L. Pitt, editor. *COLT'93: Workshop on Computational Learning Theory.* Morgan Kaufmann, 1993.

[CLNL2] Petsche, M. Kearns, S.J. Hanson, and R.L. Rivest, editors. *Computational Learning Theory and Natural Learning Systems 2.* MIT Press, 1992.

[Polya54] G. Polya. *Patterns of Plausible Inference.* Princeton University Press, New Jersey, 1954.

[28] Homepages/Pearl.UAI94.html

[Pearl89] J. Pearl and A. Paz. Graphoids: A graph-based logic for reasoning about relevance relations. In B. Du Boulay, editor, *Advances in Artificial Intelligence—II.* North-Holland, New York, 1989.

[Press.89] S.J. Press. *Bayesian Statistics.* Wiley, New York, 1989.

[Piatetsky.91] G. Piatetsky-Shapiro and W. J. Frawley, editors. *Knowledge Discovery in Databases.* The AAAI Press/The MIT Press, Menlo Park, CA, 1991.

[Pearl.verma.AAAI87] J. Pearl and T. Verma. The logic of representing dependencies by graphs. In AAAI87 [AAAI87], pages 374–379.

[Pearl87a] J. Pearl and T.S. Verma. The logic of representing dependencies by directed graphs. In *Proceedings AAAI-87 Sixth National Conference on Artificial Intelligence,* Seattle, WA, pages 374–379. AAAI Press, Menlo Park, CA, July 1987.

[Pitt.valiant.jacm] L. Pitt and L. Valiant. Computational limitations on learning from examples. *Journal of the ACM*, 35(4):965–984, 1988.

[Pearl.verma.KR2] J. Pearl and T.S. Verma. A theory of inferred causation. In Allen et al. [KR2], pages 441–452.

[Patrick.82] J.D. Patrick and C.S. Wallace. Stone circle geometries: an information theory approach. In D.C. Heggie, editor, *Archaeoastronomy in the Old World*, pages 231–264. Cambridge University Press, Cambridge, 1982.

[Quinlan.Rivest.ic] J.R. Quinlan and R.L. Rivest. Inferring decision trees using the minimum description length principle. *Information and Computation*, 80:227–248, 1989.

[Quinlan.mlj] J.R. Quinlan. Induction of decision trees. *Machine Learning*, 1(1):81–106, 1986.

[Quinlan.87] J.R. Quinlan, editor. *Applications of Expert Systems.* Addison Wesley, London, 1987.

[Quinlan.IJCAI87] J.R. Quinlan. Generating production rules from decision trees. In IJCAI87 [IJCAI87], pages 304–307.

[Quinlan.ML5] J.R. Quinlan. An empirical comparison of genetic and decision tree classifiers. In *Fifth International Conference on Machine Learning*, pages 135–141, Ann Arbor, Michigan, 1988. Morgan Kaufmann.

[Quinlan.ijmms] J.R. Quinlan. Simplifying decision trees. In B. Gaines and J. Boose, editors, *Knowledge Acquisition for Knowledge-Based Systems*, pages 239–252. Academic Press, London, 1988.

[Quinlan.ML6] J.R. Quinlan. Unknown attribute values in induction. In Segre [ML6].

[Quinlan.92] J.R. Quinlan. *C4.5: Programs for Machine Learning*. Morgan Kaufmann, 1992.

[Raiffa68] H. Raiffa. *Decision Analysis: Introductory Lectures on Choice Under Uncertainty*. Addison–Wesley, Reading, MA, 1968.

[Raiffa82] H. Raiffa. *The Art and Science of Negotiation*. Belknap Press, Cambridge, MA, 1982.

[Ramsey31] F.P. Ramsey. Truth and probability. In R.B. Braithwaite, editor, *The Foundations of Mathematics and other Logical Essays*. Humanities Press, London, 1931. Reprinted in Kyburg and Smokler, 1964.

[COLT89] R. Rivest, D. Haussler, and M.K. Warmuth, editors. *COLT'89: Second Workshop on Computational Learning Theory*, University of California, Santa Cruz, 1989. Morgan Kaufmann.

[Ripley.1981] B.D. Ripley. *Spatial Statistics*. Wiley, New York, 1981.

[Ripley.ssim] B.D. Ripley. *Stochastic Simulation*. John Wiley & Sons, 1987.

[Ripley.nets] B.D. Ripley. Statistical aspects of neural networks. In *Invited lectures for SemStat (Séminaire Européen de Statistique)*, Sandbjerg, Denmark, 1993. Chapman and Hall.

[Ripley.jrssb] B. D. Ripley. Neural networks and related methods for classification. *Journal of the Royal Statistical Society B*, 56(3), 1994.

[Rissanen.jrssb] J. Rissanen. Stochastic complexity. *Journal of the Royal Statistical Society B*, 49(3):223–239, 1987.

[Rissanen.book] J. Rissanen. *Stochastic Complexity in Statistical Enquiry*. World Scientific, 1989.

[Rivest.mlj] R.L. Rivest. Learning decision lists. *Machine Learning*, 2(3):229–246, 1987.

[Rabiner.juang.ieee] L.R. Rabiner and B.H. Juang. An introduction to hidden Markov models. *IEEE ASSP Magazine*, January:4–16, 1986.

[Jaynes.83] R.D. Rosenkrantz, editor. *E.T. Jaynes: Papers on Probability, Statistics and Statistical Physics*. D. Reidel Publishing, 1983.

[Ross.intro] S.M. Ross. *Introduction to Probability Models*. Academic Press, fourth edition, 1989.

[Ramoni.UAI94] M. Ramoni and A. Riva. Belief maintenance in Bayesian networks. In de Mantaras and Poole [UAI94]. Home page[29].

[Raiffa.schlaifer] H. Raiffa and R. Schlaifer. *Applied Statistical Decision Theory*. Harvard University, Harvard, 1961.

[Rivest.sloan.AAAI88] R.L. Rivest and R. Sloan. Learning complicated concepts reliably and usefully (extended abstract). In AAAI88 [AAAI88], pages 635–640.

[Rubinstein.81] R.Y. Rubinstein. *Simulation and the Monte Carlo Method*. Wiley, New York, 1981.

[Rubin90] H. Rubin. Discussion of "The Logic of Influence Diagrams" by pearl et al. In Oliver and Smith [OlivSmit.90], chapter 4.

[Rossi.wright.survey] P.H. Rossi, J.D. Wright, and A.B. Anderson, editors. *Handbook of Survey Research*. Academic Press, 1983.

[29] Homepages/Ramoni.UAI94.html

[Shachter90] R.D. Shachter, S.K. Andersen, and K.L. Poh. Directed reduction algorithms and decomposable graphs. In Bonissone [UAI90], pages 237–244.

[Savage54] L.J. Savage. *The Foundations of Statistics*. Dover, New York, 1954.

[Srinivas.breeze.UAI90] S. Srinivas and J. Breese. IDEAL: A software package for analysis of influence diagrams. In Bonissone [UAI90].

[Shwe91b] M. Shwe and G. Cooper. An empirical analysis of likelihood-weighting simulation on a large, multiply connected medical belief network. *Computers and Biomedical Research*, 24:453–475, 1991.

[Suermondt90] H.J. Suermondt and G.F. Cooper. A combination of exact algorithms for inference on Bayesian belief networks. *International Journal of Approximate Reasoning*, 5:521–542, 1991.

[Spiegel.cowell.BayesS4] D.J. Spiegelhalter and R.G. Cowell. Learning in probabilistic expert systems. In Bernardo et al. [BayesS4], pages 447–465.

[Suermondt90b] H.J. Suermondt, G.F. Cooper, and D.E. Heckerman. A combination of cutset conditioning with clique-tree propagation in the pathfinder system. In Bonissone [UAI90], pages 273–279.

[Schaffer.AAAI92] C. Schaffer. Sparse data and the effect of overfitting avoidance in decision tree induction. In AAAI92 [AAAI92], pages 147–152.

[Schaffer.mlj] C. Schaffer. Overfitting avoidance as bias. *Machine Learning*, 13(1), 1993.

[Scott.92] D. W. Scott. *Multivariate Density Estimation: Theory, Practice, and Visualization*. John Wiley and Sons, New York, 1992.

[Shachter.aaai.90] R. Shachter, B. D'Ambrosio, and B. DelFavero. Symbolic probabilistic inference in belief networks. In AAAI90 [AAAI90], pages 126–131.

[Spiegel.dawid.ss] D.J. Spiegelhalter, A.P. Dawid, S.L. Lauritzen, and R.G. Cowell. Bayesian analysis in expert systems. *Statistical Science*, 8(3):219–283, 1993.

[ML6] A.M. Segre, editor. *Proceedings of the Sixth International Machine Learning Workshop*, Cornell, New York, 1989. Morgan Kaufmann.

[Shachter.eddy.idbn] R.D. Shachter, D.M. Eddy, and V. Hasselblad. An influence diagram approach to medical technology assessment. In Oliver and Smith [OlivSmit.90], pages 321–350.

[Spirtes.tr90.4] P. Spirtes and C. Glymour. An algorithm for fast recovery of sparse causal graphs. Report CMU-LCL-90-4, Laboratory for Computational Linguistics, Carnegie Mellon University, 1990.

[Spirtes93] P. Spirtes, C. Glymour, and R. Scheines. *Causation, Prediction, and Search*. Springer-Verlag, New York, 1993.

[Shachter.aimag] R.D. Shachter and D. Heckerman. Thinking backwards for knowledge acquisition. *AI Magazine*, 8(Fall):55–61, 1987.

[Shachter.opres] R.D. Shachter. Evaluating influence diagrams. *Operations Research*, 34(6):871–882, 1986.

[Shachter85] R.D. Shachter. Intelligent probabilistic inference. In Kanal and Lemmer [UAI1], pages 371–382.

[Shafer86c] G. Shafer. Savage revisited. *SIAM Journal on Computing*, 1:463–501, 1986.

[Shafer.ss] G. Shafer. Probability judgements in artificial inteligence and expert systems. *Statistical Science*, 2(1):3–44, 1987.

[Shachter87a] R.D. Shachter. Probabilistic inference and influence diagrams. *SIAM Journal on Computing*, 36:589–604, 1988.

[Shachter.networks] R.D. Shachter. An ordered examination of influence diagrams. *Networks*, 20:535–563, 1990.

[EncycAI] S. Shapiro, editor. *Encyclopedia of Artificial Intelligence*. John Wiley, New York, second edition, 1992.

[Shenoy.92] Prakash P. Shenoy. Valuation-based systems for bayesian decision analysis. *SIAM Journal on Computing*, 40(3):463–484, May 1992.

[Shortliffe74] E.H. Shortliffe. *MYCIN: A Rule-Based Computer Program for Advising Physicians Regarding Antimicrobial Therapy Selection.* PhD thesis, Stanford Artificial Intelligence Laboratory, Stanford, CA, October 1974.

[Shortliffe76a] E.H. Shortliffe. *Computer-based Medical Consultations: MYCIN.* North-Holland, New York, 1976.

[Shore.UAI1] J.E. Shore. Relative entropy, probabilistic inference and AI. In Kanal and Lemmer [UAI1].

[Silverman.86] B.W. Silverman. *Density Estimation for Statistics and Data Analysis.* Chapman and Hall, New York, 1986.

[Shore.john.ieeeit] J.E. Shore and R.W. Johnson. Axiomatic derivation of the principle of maximum entropy and the principle of minimum cross-entropy. *IEEE Transactions on Information Theory*, IT-26:26–37, 1980. See also comments and corrections in IT-29, 1983.

[Shachter.kenley.89] R.D. Shachter and C.R. Kenley. Gaussian influence diagrams. *Management Science*, 35(5):527–550, 1989.

[Spiegelhalter84] D.J. Spiegelhalter and R.P. Knill-Jones. Statistical and knowledge-based approaches to clinical decision support systems, with an application in gastroenterology. *Journal of the Royal Statistical Society*, 147:35–77, 1984.

[ShraLang.90] J. Shrager and P. Langley, editors. *Computational Models of Discovery and Theory Formation.* Morgan Kaufmann, 1990.

[Spiegelhalter.laur.net] D.J. Spiegelhalter and S.L. Lauritzen. Sequential updating of conditional probabilities on directed graphical structures. *Networks*, 20:579–605, 1990.

[UAI4] R.D. Shachter, T.D. Levitt, L.N. Kanal, and J.F. Lemmer, editors. *Uncertainty in Artificial Intelligence 4.* North-Holland, 1990.

[Smyth.ML9] P. Smyth and J. Mellstrom. Detecting novel classes with applications to fault diagnosis. In ML9 [ML9].

[Smyth.NIPS91] P. Smyth and J. Mellstrom. Fault diagnosis of antenna pointing systems using hybrid neural networks and signal processing techniques. In Touretzky [NIPS91].

[Smets89] P. Smets. Constructing the pignistic probability function in a context of uncertainty. In Henrion et al. [UAI5], pages 29–39.

[Shwe91] M. Shwe, B. Middleton, D. Heckerman, M. Henrion, E. Horvitz, H. Lehmann, and G. Cooper. Probabilistic diagnosis using a reformulation of the INTERNIST-1/QMR knowledge base: Part I. The probabilistic model and inference algorithms. *SIAM Journal on Computing*, 30:241–250, 1991.

[Smyth.AISIII] P. Smyth. Admissible stochastic complexity models for classification problems. In Hand [AISIII], pages 335–347.

[Smyth.CLNL2] P. Smyth. Probability density estimation and local basis function neural networks. In Petsche, M. Kearns, S.J. Hanson, and R.L. Rivest, editors, *Computational Learning Theory and Natural Learning Systems 2.* MIT Press, 1992.

[Stolcke.om.tr94.3] A. Stolcke and S.M. Omohundro. Best-first model merging for hidden Markov model induction. Report TR-94-003, International Computer Science Institute, 1947 Center Street, Berkeley, CA, 1994.

[Solomonoff.UAI1] R. Solomonoff. The applications of algorithmic probability to problems in artificial intelligence. In Kanal and Lemmer [UAI1].

[ShaferPearl90] G. Shafer and J. Pearl, editors. *Readings in Uncertain Reasoning.* Morgan Kaufmann, San Mateo, CA, 1990.

[Shachter89c] R.D. Shachter and M. Peot. Simulation approaches to general probabilistic inference on belief networks. In Henrion et al. [UAI5], pages 221–231.

[Shachter.peot.92] Ross D. Shachter and Mark A. Peot. Decision making using probabilistic inference methods. In Dubois et al. [UAI92], pages 276–283.

[Shachter.peot.aij] R.D. Shachter and M.A. Peot. Evidential reasoning using likelihood weighting. *Artificial Intelligence*, 1993. To appear (?).

[Spiegelhalter.AIaS] D.J. Spiegelhalter. A statistical view of uncertainty in expert systems. In Gale [AIaS], pages 17–55.

[Spiegelhalter.ss] D.J. Spiegelhalter. Probabilistic expert systems in medicine: Practical issues in handling uncertainty. *Statistical Science*, 2(1):3–44, 1987.

[Smith.roberts.jrssb] A.F.M. Smith and G.O. Roberts. Bayesian computation via the Gibbs sampler and related Markov chain Monte Carlo methods. *Journal of the Royal Statistical Society B*, 55(1):3–23, 1993.

[Srinivas.UAI5] S. Srinivas, S. Russell, and A. Agogino. Automated construction of sparse Bayesian networks. In Henrion et al. [UAI5], pages 295–308.

[Srinivas93] S. Srinivas. A generalization of the noisy-Or model. In Heckerman and Mamdani [UAI93], pages 208–215.

[Smith.etal.jrssb] A.F.M. Smith and D.J. Spiegelhalter. Bayes factors and choice criteria for linear models. *Journal of the Royal Statistical Society B*, 42(2):213–220, 1980.

[Smith.self.auto] R. Smith, M. Self, and P. Cheeseman. Estimating uncertain spatial relationships in robotics. In I.J. Cox and G.T. Wilfong, editors, *Autonomous Robot Vehicles*, pages 167–193. Springer-Verlag, 1990.

[Sompol.COLT91] H. Sompolinski, H.S. Seung, and N. Tishby. Learning curves in large neural networks. In *COLT'91: 1991 Workshop on Computational Learning Theory*, pages 112–127. Morgan Kaufmann, 1991.

[Seung.tishby.prA] H.S. Seung, H. Sompolinsky, and N. Tishby. Statistical mechanics of learning from examples. *Physical Review A*, 45:6056–6091, 1992.

[Spetzler75] C.S. Spetzler and C.S. Stael von Holstein. Probability encoding in decision analysis. *SIAM Journal on Computing*, 22:340–358, 1975.

[Star87] S. Star. Theory-based inductive learning: An integration of symbolic and quantitative methods. In Kanal et al. [UAI3], pages 401–424.

[Stewart.stat] L. Stewart. Hierarchical Bayesian analysis using Monte Carlo integration: computing posterior distributions when there are many possible models. *The Statistician*, 36:211–219, 1987.

[Stigler.86] S.M. Stigler. *The History of Statistics: The Measurement of Uncertainty before 1900.* Belknap Press of Harvard Uni. Press, Cambridge, Massachussetts, 1986.

[Studeny.UAI94] M. Studený. Semigraphoids are two-antedental approximations of stochastic conditional independence models. In de Mantaras and Poole [UAI94]. Home page[30].

[Suppes57] P. Suppes. *Introduction to Logic.* Van Nostrand Reinhold, New York, 1957.

[Suppes.70] P. Suppes. *A Probabilistic Theory of Causality.* North-Holland, Amsterdam, 1970.

[Suppes70] P. Suppes, editor. *A Probabilistic Theory of Causality.* North-Holland, New York, 1970.

[Singh93] M. Singh and M. Valtorta. An algorithm for the construction of Bayesian network structures from data. In *Proceedings of Ninth Conference on Uncertainty in Artificial Intelligence,* Washington, DC, pages 259–265. Morgan Kaufmann, July 1993.

[SagivWalecka82.Automated] Yehoshua Sagiv and Scott F. Walecka. Subset dependencies and completeness result for a subclass of embedded multivalued dependencies. *Journal of the ACM*, 29:103–117, 1982.

[Seber.wild] G.A.F. Seber and C.J. Wild. *Nonlinear Regression.* Wiley, New York, 1989.

[Tanner.93] M.A. Tanner. *Tools for Statistical Inference.* Springer-Verlag, New York, second edition, 1993.

[30] Homepages/Studeny.UAI94.html

[Tatman85] J.A. Tatman. *Decision Processes in Influence Diagrams: Formulation and Analysis.* PhD thesis, Department of Engineering-Economic Systems, Stanford University, Stanford, CA, 1985.

[CMSS90] David S. Touretzky, Jeffrey L. Elman, Terrence J. Sejnowski, and Geoffrey E. Hinton, editors. *Proceedings of the 1990 Connectionist Models Summer School.* Morgan Kaufmann, 1990.

[Tou.gonzalez] J.T. Tou and R.C. Gonzalez. *Pattern Recognition Principles.* Addison-Wesley, USA, 1974.

[Thisted.88] R.A. Thisted. *Elements of Statistical Computing.* Chapman and Hall, New York, 1988.

[Thodberg.NIPS93] H.H. Thodberg. Bayesian backprop in action: Pruning, ensembles, error bars and applications to spectroscopy. In NIPS93 [NIPS93].

[CMSS88] David S. Touretzky, Geoffrey E. Hinton, and Terrence J. Sejnowski, editors. *Proceedings of the 1988 Connectionist Models Summer School.* Morgan Kaufmann, 1988.

[Titterington.jrssb] D.M. Titterington. Recursive parameter estimation using incomplete data. *Journal of the Royal Statistical Society B*, 46(2):257–267, 1984.

[Tversky74] A. Tversky and D. Kahneman. Judgment under uncertainty: Heuristics and biases. *SIAM Journal on Computing*, 185:1124–1131, 1974.

[Tierney.kadane.jasa] L. Tierney and J.B. Kadane. Accurate approximations for posterior moments and marginal densities. *Journal of the American Statistical Association*, 81(393):82–86, 1986.

[NIPS91] D.S. Touretzky, editor. *Advances in Neural Information Processing Systems 4 (NIPS*91).* Morgan Kaufmann, 1992.

[Tribus.69] M. Tribus. *Rational Descriptions, Decisions and Designs.* Pergamon Press, New York, 1969.

[Tatman90] J.A. Tatman and R.D. Shachter. Dynamic programming and influence diagrams. *SIAM Journal on Computing*, 1990. In press.

[Spiegelhalter.BayesS4] A. Thomas, D.J. Spiegelhalter, and W.R. Gilks. BUGS: A program to perform Bayesian inference using Gibbs sampling. In Bernardo et al. [BayesS4], pages 837–42.

[Titter.smith.85] D.M. Titterington, A.F.M. Smith, and U.E. Makov. *Statistical Analysis of Finite Mixture Distributions.* John Wiley & Sons, Chichester, 1985.

[Turing.47] A.M. Turing. Lecture to the London Mathematical Society on 2 February 1947. In Carpenter and Doran [CarpDor.86], pages 106–124.

[UAI88] *Proceedings of the Fourth Workshop on Uncertainty in Artificial Intelligence,* Minneapolis, MN, Mountain View, CA, August 1988. Association for Uncertainty in Artificial Intelligence.

[vanLaar] P.J.M. van Laarhoven and E.H.L. Aarts. *Simulated Annealing: Theory and Applications.* D. Reidel, Dordrecht, 1987.

[Valiant.cacm] L.G. Valiant. A theory of the learnable. *Communications of the ACM*, 27(11):1134–1142, 1985.

[Vapnik.82] V. Vapnik. *Estimation of Dependencies Based on Empirical Data.* Springer-Verlag, New York, 1982.

[Vitter.flajolet.aver] J.S. Vitter and P. Flajolet. Average-case analysis of algorithms and data structures. In J. van Leeuwen, editor, *Handbook of Theoretical Computer Science*, pages 431–524. Elsevier Science Publishers, 1990.

[VonNeumann47] J. von Neumann and O. Morgenstern. *Theory of Games and Economic Behavior.* Princeton University Press, Princeton, NJ, 1947.

[Verma88] T. Verma and J. Pearl. Causal networks: Semantics and expressiveness. In Shachter et al. [UAI4], pages 69–76.

[Verma.pearl.UAI90] T.S. Verma and J. Pearl. Equivalence and synthesis of causal models. In Bonissone [UAI90].

[Verma92] T. Verma and J. Pearl. An algorithm for deciding if a set of observed independencies has a causal explanation. In Dubois et al. [UAI92].

[COLT91] L.G. Valiant and M.K. Warmuth, editors. *COLT'91: Workshop on Computational Learning Theory.* Morgan Kaufmann, 1991.

[Winterfeldt.86] D. von Winterfeldt and W. Edwards. *Decision Analysis and Behavioral Research.* Cambridge University Press, 1986.

[Wadsworth.89] H.M. Wadsworth Jr., editor. *Handbook of Statistical Methods for Engineers and Scientists.* McGraw-Hill, New York, 1989.

[Wallace.89b] C.S. Wallace. False oracles and SMML estimators. Technical Report 89/128, Department of Computer Science,Monash University, June 1989.

[Wallace.90] C.S. Wallace. Classification by minimum-message-length inference. In S.G. Akl et al., editors, *Advances in Computing and Information-ICCI 1990*, pages 72–81, Niagara Falls, 1990.

[Wang.UAI94] Pei Wang. A defect in dempster-shafer theory. In de Mantaras and Poole [UAI94]. Home page[31].

[Watanabe.69] S. Watanabe. *Knowing and Guessing: A Formal and Quantitative Study.* John Wiley, New York, 1969.

[Waterman.es] D.A. Waterman. *A Guide to Expert Systems.* Addison Wesley, 1986.

[Wallace.68] C.S. Wallace and D.M. Boulton. An information measure for classification. *The Computer Journal*, 11(2):195–209, 1968.

[Wallace.75] C.S. Wallace and D.M. Boulton. An invariant Bayes method for point estimation. *SIAM Journal on Computing*, 3(3):11–34, 1975.

[Wellman.etal.KER92] Michael P. Wellman, John S. Breese, and Robert P. Goldman. From knowledge bases to decision models. *SIAM Journal on Computing*, 7(1):35–53, 1992.

[Wirth.ML5] J. Wirth and J. Catlett. Experiments on the costs and benefits of windowing in ID3. In *Fifth International Conference on Machine Learning*, pages 87–99, Ann Arbor, Michigan, 1988. Morgan Kaufmann.

[Wellman.AAAI87] Michael P. Wellman. Probabilistic semantics for qualitative influences. In AAAI87 [AAAI87], pages 660–664.

[Wellman.UAI2] M. Wellman. Qualitative probabilistic networks for planning under uncertainty. In Kanal and Lemmer [UAI2].

[WellmanPhd88] M.P. Wellman. *Formulation of Tradeoffs in Planning Under Uncertainty.* PhD thesis, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, MA, August 1988.

[Wellman86] M.P. Wellman. Qualitative probabilistic networks for planning under uncertainty. In Kanal and Lemmer [UAI2], pages 197–209.

[Wellman.book90] Michael P. Wellman. *Formulation of Tradeoffs in Planning Under Uncertainty.* Pitman, London, 1990.

[Wellman.AIj90] Michael P. Wellman. Fundamental concepts of qualitative probabilistic networks. *Artificial Intelligence*, 44:257–303, 1990.

[Wellman.Nets90] Michael P. Wellman. Graphical inference in qualitative probabilistic networks. *Networks*, 20:687–701, 1990.

[Wellman.AAAI90] Michael P. Wellman. The STRIPS assumption for planning under uncertainty. In AAAI90 [AAAI90], pages 198–203.

[Wellman.UAI6] Michael P. Wellman. Exploiting functional dependencies in qualitative probabilistic reasoning. In Bonissone et al. [UAI6], pages 3–15.

[Wellman.MCSim94] Michael P. Wellman. Inference in cognitive maps. *SIAM Journal on Computing*, 36:1–12, 1994.

[Weydert94a] Emil Weydert. General belief measures. In de Mantaras and Poole [UAI94]. Home page[32].

[31] Homepages/Wang.UAI94.html

[32] Homepages/Weydert94a.UAI94.html

[Wallace.jrssb] C.S. Wallace and P.R. Freeman. Estimation and inference by compact encoding. *Journal of the Royal Statistical Society B*, 49(3):240–265, 1987.

[Wallace.92b] C.S. Wallace and P.R. Freeman. Single factor analysis by MML estimation. *Journal of the Royal Statistical Society B*, 54(1):185–209, 1992.

[Wellman.Henrion.KR2] Michael P. Wellman and Max Henrion. Qualitative intercausal relations, or Explaining "explaining away". In Allen et al. [KR2], pages 535–546.

[Wellman.Henrion.PAMI93] Michael P. Wellman and Max Henrion. Explaining "explaining away". *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 15:287–292, 1993.

[Whittaker.nets] J. Whittaker. *Graphical Models in Applied Multivariate Statistics.* Wiley, 1990.

[W.IJNS] A.S. Weigend, B.A. Huberman, and D.E. Rumelhart. Predicting the future: a connectionist approach. *International Journal of Neural Systems*, 1:193–209, 1990.

[Weiss.IJCAI91] S.M. Weiss and N. Indurkhya. Reduced complexity rule induction. In IJCAI91 [IJCAI91].

[Williams.mart] D. Williams. *Probability with Martingales.* Cambridge University Press, 1991.

[Winkler67a] R.L. Winkler. The assessment of prior distributions in Bayesian analysis. *SIAM Journal on Computing*, 62:776–800, 1967.

[Winkler67b] R.L. Winkler. The quantification of judgment: Some methodological suggestions. *SIAM Journal on Computing*, 62:1105–1120, 1967.

[Winkler68] R.L. Winkler. The consensus of subjective probability distributions. *SIAM Journal on Computing*, 15(2):??, 1968.

[Winkler69] R.L. Winkler. Scoring rules and the evaluation of probability assessors. *SIAM Journal on Computing*, 64:1073–1078, 1969.

[Winkler69b] R.L. Winkler. Scoring rules and the evaluation of probability assessors. *SIAM Journal on Computing*, 64:1073–1078, 1969.

[Wise86b] B. Wise. *An Experimental Comparison of Uncertain Inference Systems.* PhD thesis, The Robotics Institute and Department of Engineering and Public Policy, Carnegie–Mellon University, Pittsburgh, PA, June 1986.

[Jeffreys19] D. Wrinch and H. Jeffreys. On some aspects of the theory of probability. *Philosophical Magazine, Series 6*, 38(228):715–731, 1919.

[Weiss.detroit] S.M. Weiss and I. Kapouleas. An empirical comparison of pattern recognition, neural nets, and machine learning classification methods. In IJCAI89 [IJCAI89], pages 781–787.

[Weiss.kulik.91] S.M. Weiss and C.A. Kulikowski. *Computer Systems That Learn.* Morgan-Kaufmann, 1991.

[Wermuth.laur.jrssb] N. Wermuth and S.L. Lauritzen. On substantive research hypotheses, conditional independence graphs and graphical chain models. *Journal of the Royal Statistical Society B*, 51(3), 1989.

[Wellman.Liu.UAI94] Michael P. Wellman and Chao-Lin Liu. State-space abstraction for anytime evaluation of probabilistic networks. In de Mantaras and Poole [UAI94]. Home page[33].

[Wolpert.nn] D. Wolpert. Stacked generalization. *Neural Networks*, 5(2):241–260, 1992.

[Wolpert.sl] David Wolpert, editor. *Theories of Induction. Proceedings of the SFI/CNLS workshop on formal approaches to supervised learning.* Addison-Wesley, 1993. In the Sante Fe Institute series.

[Wallace.trees] C.S. Wallace and J.D. Patrick. Coding decision trees. *Machine Learning*, 1993.

[Wallace.93] C.S. Wallace and J.D. Patrick. Coding decision trees. *Machine Learning*, 11:7–22, 1993.

[33] Homepages/Wellman.Liu.UAI94.html

[Wright21] S. Wright. Correlation and causation. *SIAM Journal on Computing*, 20:557–85, 1921.

[Xu.UAI94] Hong Xu and Philippe Smets. Evidential reasoning with conditional belief functions. In de Mantaras and Poole [UAI94]. Home page[34].

[Zellner.maxentprior] A. Zellner. Maximal data information prior distributions. In A. Aykac and C. Bumat, editors, *New Developments in the Applications of Bayesian Methods*, pages 211–232. North-Holland, Amsterdam, 1977.

[Zhang.Poole.UAI94] Nevin L. Zhang and David Poole. Intercausal independence and heterogeneous factorization. In de Mantaras and Poole [UAI94]. Home page[35].

[34] Homepages/Xu.UAI94.html
[35] Homepages/Zhang.Poole.UAI94.html