

# Bibliography

- [1] M. Aarup, M. M. Arentoft, Y. Parrod, I. Stokes, H. Vadon, and J. Stader. Optimum-AIV: A knowledge-based planning and scheduling system for spacecraft AIV. In *Intelligent Scheduling*, pp. 451–469. M. Zweben and M. S. Fox, eds., Morgan Kaufmann, 1994.
- [2] S. Adali, L. Console, M. L. Sapino, M. Schenone, and P. Terenziani. Representing and reasoning with temporal constraints in multimedia presentations. In *TIME*, pp. 3–12. IEEE 2000.
- [3] J. M. Agosta. Formulation and implementation of an equipment configuration problem with the SIPE-2 generative planner. In *Proc. AAAI-95 Spring Symposium on Integrated Planning Applications*, pp. 1–10. 1995.
- [4] P. Agree and D. Chapman. Pengi: An implementation of a theory of activity. In *Proc. of the 6th National Conference on Artificial Intelligence*, pp. 268–272. Seattle: AAAI, 1987.
- [5] A. V. Aho, J. E. Hopcroft, and J. D. Ullman. *The Design and Analysis of Computer Algorithms*. Addison-Wesley, 1976.
- [6] L. C. Aiello, A. Cesta, E. Giunchiglia, M. Pistore, and P. Traverso. Planning and verification techniques for the high level programming and monitoring of autonomous robotic devices. In *Proceedings of the European Space Agency Workshop on On Board Autonomy* (Noordwijk, The Netherlands, ESTEC October 2001).
- [7] L. C. Aiello, A. Cesta, E. Giunchiglia, and P. Traverso. Merging planning and verification techniques for “safe planning” in space robotics. In *6th International Symposium on Artificial Intelligence, Robotics and Automation in Space: A New Space Odyssey (ISAIRAS01)* (Montreal, Canada, June 2001).
- [8] R. Alami and S. Botelho. Plan-based multi-robot cooperation. In Beetz *et al.* [58], pp. 1–20, 2002.
- [9] R. Alami, R. Chatila, S. Fleury, M. Ghallab, and F. Ingrand. An architecture for autonomy. *International Journal of Robotics Research*, 17(4), pp. 315–337, 1998.
- [10] R. Alami, S. Fleury, M. Herrb, F. Ingrand, and F. Robert. Multi-robot cooperation in the Martha project. *IEEE Robotics and Automation Magazine*, 5(1):36–47, 1998.
- [11] R. Alami, J. P. Laumond, and T. Siméon. Two manipulation planning algorithms. In Goldberg *et al.* [235], pp. 109–125, 1995.
- [12] J. F. Allen. Towards a general theory of action and time. *Artificial Intelligence*, 23:123–154, 1984.
- [13] J. F. Allen. Temporal reasoning and planning. In Allen *et al.* [15], pp. 1–68, 1991.

- [14] J. F. Allen, J. Hendler, and A. Tate, *Readings in Planning*. Morgan Kaufmann, 1990.
- [15] J. F. Allen, H. Kautz, R. Pelavin, and J. Tenenber, *Reasoning about Plans*. Morgan Kaufmann, 1991.
- [16] J. F. Allen. Maintaining knowledge about temporal intervals. *Communications of the ACM*, 21(11):832–843, 1983.
- [17] J. F. Allen. Planning as temporal reasoning. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, Morgan Kaufmann, 1991.
- [18] J. F. Allen and J. A. Koomen. Planning using a temporal world model. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1983.
- [19] J. Ambite and C. Knoblock. Planning by rewriting. *Journal of Artificial Intelligence Research*, 15:207–261, 2001.
- [20] C. Anderson, D. Smith, and D. Weld. Conditional effects in Graphplan. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 44–53, 1998.
- [21] E. Anderson, C. Glass, and C. Potts. Machine scheduling. In E. Aarts and J. Lenstra, eds., *Local Search in Combinatorial Optimization*, pp. 361–414, Wiley, 1997.
- [22] D. Applegate, G. Jacobson, and D. Sleator. *Computer Analysis of Sprouts*. Technical report, Carnegie Mellon University, 1991.
- [23] R. Arkin. *Behavior-Based Robotics*. MIT Press, 1998.
- [24] E. Asarin, O. Maler, and A. Pnueli. Symbolic controller synthesis for discrete and timed systems. In *Hybrid Systems II, LNCS 999*, pp. 1–20, Springer-Verlag, 1995.
- [25] T.-C. Au, H. Muñoz-Avila, and D. S. Nau. On the complexity of plan adaptation by derivational analogy in a universal classical planning framework. In *Proceedings of the European Conference on Case-Based Reasoning (ECCBR)*, (Aberdeen, Scotland, September 4–7, 2002), pp. 13–27.
- [26] P. Avesani, A. Perini, and F. Ricci. The twofold integration of CBR in decision support systems. In D. Aha and J. Daniels, eds., *Case-Based Reasoning Integrations: Papers from the 1998 Workshop* (Technical Report WS-98-15). AAAI Press, 1998.
- [27] A. Baba, J. Bresina, L. Charest, W. Edgington, A. Jonsson, A. Ko, B. Kanefsky, P. Maldague, P. Morris, N. Muscettola, and K. Rajan. MAPGEN: Mixed Initiative Planning and Scheduling for the Mars’03 MER Mission. In *Proceedings of the International Symposium on Artificial Intelligence, Robotics, and Automation in Space (i-SAIRAS)* (Nara, Japan, May 2003).
- [28] F. Bacchus. The AIPS ’00 planning competition. *AI Magazine*, 22(1):47–56, 2001.
- [29] F. Bacchus and M. Ady. Planning with resources and concurrency: A forward chaining approach. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 417–424, 2001.
- [30] F. Bacchus, C. Boutilier, and A. Grove. Rewarding behaviors. In *AAAI/IAAI Proceedings*, pp. 1160–1167, 1996.

- [31] F. Bacchus, C. Boutilier, and A. Grove. Structured solution methods for non-Markovian decision processes. In *AAAI/IAAI Proceedings*, 1997.
- [32] F. Bacchus and F. Kabanza. Planning for temporally extended goals. *Annals of Mathematics and Artificial Intelligence*, 22:5–27, 1998.
- [33] F. Bacchus and F. Kabanza. Using temporal logics to express search control knowledge for planning. *Artificial Intelligence*, 116:123–191, 2000.
- [34] F. Bacchus and P. van Beek. On the conversion between non-binary and binary constraint satisfaction problems. In *AAAI/IAAI Proceedings*, pp. 311–318, 1998.
- [35] F. Bacchus and P. van Run. Dynamic variable ordering in CSPs. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, pp. 258–275, 1995.
- [36] F. Bacchus and Q. Yang. The downward refinement property. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 286–292, 1991.
- [37] F. Bacchus and Q. Yang. Downward refinement and the efficiency of hierarchical problem solving. *Artificial Intelligence*, 71:43–100, 1994.
- [38] C. Bäckström. Planning in polynomial time: The SAS-PUB class. *Computational Intelligence*, 7:181–197, 1991.
- [39] C. Bäckström. Equivalence and tractability results for SAS<sup>+</sup> planning. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, 1992.
- [40] C. Bäckström and B. Nebel. Complexity results for SAS<sup>+</sup> planning. *Computational Intelligence*, 11(4):1–34, 1995.
- [41] M. Baiocchi, S. Marcugini, and A. Milani. C-SATPlan: A SATPlan-based tool for planning with constraints. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 1998.
- [42] M. Baiocchi, S. Marcugini, and A. Milani. DPPlan: An algorithm for fast solutions extraction from a planning graph. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 13–21, 2000.
- [43] K. Baker. *Introduction to Sequencing and Scheduling*. Wiley, 1974.
- [44] E. Balas. A note on the branch-and-bound principle. *Operations Research*, 16:442–444, 1968.
- [45] P. Baptiste, C. LePape, and W. Nuijten. *Constraint-Based Scheduling*. Kluwer Academic Publishers, 2001.
- [46] C. Baral and V. S. Subrahmanian. Dualities between alternative semantics for logic programming and non-monotonic reasoning. *Journal of Automated Reasoning*, 10:399–420, 1993.
- [47] F. Barber. Reasoning on interval and point-based disjunctive metric constraints in temporal contexts. *Journal of Artificial Intelligence Research*, 12:35–86, 2000.

- [48] J. Barraquand and J. C. Latombe. Robot motion planning: A distributed representation approach. *International Journal of Robotics Research*, 10(6): 628–649, 1991.
- [49] A. Barrett. *Frugal Hierarchical Task-Network Planning*. Ph.D. thesis, University of Washington, 1997.
- [50] A. Barrett, K. Golden, J. S. Penberthy, and D. S. Weld. *UCPOP User's Manual (Version 2.0)*. Technical Report TR-93-09-06. Department of Computer Science and Engineering, University of Washington, 1993. <ftp://ftp.cs.washington.edu/tr/1993/09/UW-CSE-93-09-06.PS.Z>.
- [51] A. Barrett and D. S. Weld. Characterizing subgoal interactions for planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1388–1393, 1993.
- [52] A. Barrett and D. S. Weld. Partial order planning: Evaluating possible efficiency gains. *Artificial Intelligence*, 67(1):71–112, 1994.
- [53] A. Barrett and D. S. Weld. Task-decomposition via plan parsing. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, Volume 2, pp. 1117–1122. AAAI Press/MIT Press, 1994.
- [54] M. Bauer, S. Biundo, D. Dengler, J. Koehler, and G. Paul. A logic-based tool for intelligent help systems. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 460–466. Morgan Kaufmann, 1997.
- [55] M. Beetz. Structured reactive controllers—a computational model of everyday activity. In *3rd Int. Conf. on Autonomous Agents*, pp. 228–235, 1999.
- [56] M. Beetz. *Plan-Based Control of Robotics Agents*. Volume 2554 of *Lecture Notes in Artificial Intelligence (LNAI)*. Springer-Verlag, 2002.
- [57] M. Beetz and T. Belker. Environment and task adaptation for robotics agents. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, pp. 648–657, IOS Press 2000.
- [58] M. Beetz, J. Hertzberg, M. Ghallab, and M. Pollack, eds. *Advances in Plan-Based Control of Robotics Agents*. LNAI 2466. Springer-Verlag, 2002.
- [59] M. Beetz and D. McDermott. Declarative goals in reactive plans. In J. Hendler, eds., *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 3–12. CA: Morgan Kaufmann, 1992.
- [60] E. Bensana, G. Bel, and D. Dubois. OPAL: A multi-knowledge-based system for industrial job-shop scheduling. *International Journal of Production Research*, 5(26):795–819, 1988.
- [61] R. Bergmann and W. Wilke. Building and refining abstract planning cases by change of representation language. *Journal of Artificial Intelligence Research*, 3:53–118, 1995.
- [62] A. Beringer, G. Aschemann, H. Hoos, M. Metzger, and A. Weiss. GSAT versus simulated annealing. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, pp. 130–134. Wiley, 1994.

- [63] D. Bernard, E. Gamble, N. Rouquette, B. Smith, Y. Tung, N. Muscettola, G. Dorias, B. Kanefsky, J. Kurien, W. Millar, P. Nayak, and K. Rajan. *Remote Agent Experiment. DS1 Technology Validation Report*. NASA Ames and JPL report, 1998.
- [64] A. Berthoz. *The Brain's Sense of Movement (Perspectives in Cognitive Neuroscience)*. Harvard University Press, 2000.
- [65] P. Bertoli, A. Cimatti, M. Pistore, M. Roveri, and P. Traverso. MBP: A Model Based Planner. In *Proceedings of ICAI-2001 Workshop on Planning under Uncertainty and Incomplete Information*, (Seattle, WA, August 2001), pp. 93–97.
- [66] P. Bertoli, A. Cimatti, M. Roveri, and P. Traverso. Planning in nondeterministic domains under partial observability via symbolic model checking. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*: Morgan Kaufmann, (Seattle, WA, August 2001), pp. 473–478.
- [67] C. Bessiere and M. Cordier. Arc-consistency and arc-consistency again. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 108–113, 1993.
- [68] P. Bessiere, J. Ahuactzin, E. Talbi, and E. Mazer. The Ariadne's clew algorithm: Global planning with local methods. In Goldberg *et al.* [235], pp. 39–47, 1995.
- [69] W. Bibel, L. Farinas del Cerro, B. Fronhöfer, and A. Herzig. Plan generation by linear proofs: On semantics. In *German Workshop on Artificial Intelligence—GWAIF89*, Volume 216 of *Informatik-Fachberichte*. Springer-Verlag, 1989.
- [70] A. W. Biermann. Theoretical issues related to computer game playing programs. *Personal Computing*, pp. 86–88, September 1978.
- [71] S. Biundo, D. Dengler, and J. Koehler. Deductive planning and plan reuse in a command language environment. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, pp. 632–638, 1992.
- [72] S. Biundo and B. Schattenberg. From abstract crisis to concrete relief—a preliminary report on combining state abstraction and HTN planning. In *Proceedings of the European Conference on Planning (ECP)*, pp. 157–168, 2001.
- [73] A. L. Blum and J. Langford. Probabilistic planning in the Graphplan framework. In *Proceedings of the European Conference on Planning (ECP)*, pp. 319–332, 1999.
- [74] A. L. Blum and M. L. Furst. Fast planning through planning graph analysis. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1636–1642, 1995.
- [75] A. L. Blum and M. L. Furst. Fast planning through planning graph analysis. *Artificial Intelligence*, 90:281–300, 1997.
- [76] A. Bockmayr and Y. Dimopoulos. Mixed integer programming models for planning problems. In *Working Notes of the CP-98 Constraint Problem Reformulation Workshop*, 1998.
- [77] A. Bockmayr and Dimopoulos. Integer programs and valid inequalities for planning problems. In *Proceedings of the European Conference on Planning (ECP)*, pp. 239–251, LNAi 1809, Springer-Verlag, 1999.

- [78] M. Boddy and T. Dean. Solving time-dependent planning problems. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 979–984, 1989.
- [79] R. P. Bonasso, D. Kortenkamp, D. Miller, and M. Slack. *Experiences with an Architecture for Intelligent reactive agents*, pp. 187–202. Wooldridge, Mueller, and Tambe, eds., ATAL, LNCS 1037, Springer-Verlag, 1995.
- [80] B. Bonet and H. Geffner. Learning sorting and decision trees with POMDPs. In *Proceedings of the International Conference on Machine Learning (ICML)*, 1998.
- [81] B. Bonet and H. Geffner. Planning as heuristic search: New results. In *Proceedings of the European Conference on Planning (ECP)*, pp. 360–372, LNAi 1809, Springer-Verlag, 1999.
- [82] B. Bonet and H. Geffner. Planning with incomplete information as heuristic search in belief space. In S. Chien, S. Kambhampati, and C. Knoblock, eds., *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 52–61. AAAI Press, 2000.
- [83] B. Bonet and H. Geffner. GPT: A tool for planning with uncertainty and partial information. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 82–87, 2001.
- [84] B. Bonet and H. Geffner. Planning and control in artificial intelligence: A unifying perspective. *Applied Intelligence*, 14(3):237–252, 2001.
- [85] V. Boor, M. H. Overmars, and A. F. van der Stappen. The Gaussian sampling strategy for probabilistic roadmap planners. In *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 1018–1023, 1999.
- [86] S. Botelho and R. Alami. Cooperative plan enhancement in multi-robot context. In *Intelligent Autonomous Systems 6*, pp. 131–138. IOS Press, 2000.
- [87] C. Boutilier. A POMDP formulation of preference elicitation problems. In *AAAI/IAAI Proceedings*, pp. 239–246, 2002.
- [88] C. Boutilier, T. Dean, and S. Hanks. Decision-theoretic planning: Structural assumptions and computational leverage. *Journal of Artificial Intelligence Research*, 11:1–93, 1999.
- [89] C. Boutilier, R. Dearden, and M. Goldszmidt. Stochastic dynamic programming with factored representations. *Artificial Intelligence*, 121(1–2):49–107, 2000.
- [90] C. Boutilier, R. Reiter, and B. Price. Symbolic dynamic programming for first-order MDPs. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 690–697, 2001.
- [91] F. Brémond and M. Thonnat. Recognition of scenarios describing human activities. In *International Workshop on Dynamic Scene Recognition from Sensor Data*, 1997.
- [92] F. Brémond and M. Thonnat. Issues of representing context illustrated by video-surveillance applications. *International Journal of Human-Computer Studies*, 48:375–391, 1998.

- [93] J. L. Bresina. Design of a reactive system based on classical planning. In *Foundations of Automatic Planning: The Classical Approach and Beyond: Papers from the 1993 AAAI Spring Symposium*, pp. 5–9. AAAI Press, 1993.
- [94] L. A. Breslow and D. W. Aha. *NACODAE: Navy Conversational Decision Aids Environment*. Technical Report AIC-97-018. Naval Research Laboratory, Navy Center for Applied Research in Artificial Intelligence, 1997.
- [95] V. Brusoni, L. Console, and P. Terenziani. On the computational complexity of querying bounds on differences constraints. *Artificial Intelligence*, 74(2):367–379, 1995.
- [96] V. Brusoni, L. Console, P. Terenziani, and D. T. Dupr. A spectrum of definitions for temporal model-based diagnosis. *Artificial Intelligence*, 102(1):39–79, 1998.
- [97] V. Brusoni, L. Console, P. Terenziani, and B. Pernici. Qualitative and quantitative temporal constraints and relational databases: Theory, architecture, and applications. *IEEE Transactions on Knowledge and Data Engineering*, 11(6):948–968, 1999.
- [98] A. Bundy, F. Giunchiglia, R. Sebastiani, and T. Walsh. Computing abstraction hierarchies by numerical simulation. In *AAAI/IAAI Proceedings*, 1996.
- [99] J. R. Burch, E. M. Clarke, K. L. McMillan, D. L. Dill, and L. J. Hwang. Symbolic model checking:  $10^{20}$  states and beyond. *Information and Computation*, 98(2):142–170, 1992.
- [100] T. Bylander. Complexity results for planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1991.
- [101] T. Bylander. Complexity results for extended planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, 1992.
- [102] T. Bylander. A linear programming heuristic for optimal planning. In *AAAI/IAAI Proceedings*. (Providence, RI, 1997): AAAI Press/MIT Press, pp. 694–699.
- [103] J. Carbonell. Learning by analogy: Formulating and generalizing plans from past experience. In R. Michalsky, J. Carbonell, and T. Mitchell, eds., *Machine Learning: An Artificial Intelligence Approach*, pp. 137–162. Tioga Publishing, 1983.
- [104] J. Carbonell. Derivational analogy: A theory of reconstructive problem solving and expertise acquisition. In R. S. Michalski, J. G. Carbonell, and T. M. Mitchell, eds., *Machine Learning: An Artificial Intelligence Approach: Volume II*, pp. 371–392. Los Altos, CA: Morgan Kaufmann, 1986.
- [105] J. Carbonell, C. Knoblock, and S. Minton. PRODIGY : An integrated architecture for planning and learning. In van Lehn [521], 1990.
- [106] J. Carlier. The one-machine sequencing problem. *European Journal of Operational Research*, 11:42–47, 1982.
- [107] C. Carrick, Q. Yang, I. Abi-Zeid, and L. Lamontagne. Activating CBR systems through autonomous information gathering. In *Proceedings of the International Conference on Case-Based Reasoning (ICCBR)*, pp. 74–88. Springer-Verlag, 1999.

- [108] A. Cassandra, L. Kaelbling, and M. Littman. Acting optimally in partially observable stochastic domains. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, AAAI Press, 1994.
- [109] C. Castellini, E. Giunchiglia, and A. Tacchella. Improvements to SAT-based conformant planning. In A. Cesta and D. Borrajo, eds., *Proceedings of the European Conference on Planning (ECP)*, pp. 241–252, 2001.
- [110] C. Castellini, E. Giunchiglia, and A. Tacchella. SAT-based planning in complex domains: Concurrency, constraints and nondeterminism. *Artificial Intelligence*, 147:85–118, 2003.
- [111] M. Cayrol, P. Régnier, and V. Vidal. New results about LCGP, a least committed Graphplan. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 273–282, 2000.
- [112] M. Cayrol, P. Régnier, and V. Vidal. Least commitment in Graphplan. *Artificial Intelligence*, 130:85–118, 2001.
- [113] M. D. Center. *Machining Data Handbook*, Cincinnati, OH: Metcut Research Associates, 3 ed., 1980.
- [114] A. Cesta and A. Odi. Gaining efficiency and flexibility in the simple temporal problem. In *Proc. 3rd Int. Workshop on Temporal Representation and Reasoning*, IEEE-CS Press, 1996.
- [115] A. Cesta and C. Stella. A time and resource problem for planning architectures. In S. Steel and R. Alami, eds., *Proceedings of the European Conference on Planning (ECP)*, pp. 117–129. LNAI 1348. Springer-Verlag, 1997.
- [116] R. Chandrasekaran. Program for a better bridge game: A college partnership aids industry research. *The Washington Post*, pp. 1, 15, 19, 1997.
- [117] T. C. Chang. *Expert Process Planning for Manufacturing*. Reading, MA: Addison-Wesley, 1990.
- [118] T. C. Chang. *Expert Process Planning Systems*. Reading, MA: Addison-Wesley, 1989.
- [119] T. C. Chang and R. A. Wysk. *An Introduction to Automated Process Planning Systems*. Englewood Cliffs, NJ: Prentice-Hall, 1985.
- [120] D. Chapman. Planning for conjunctive goals. *Artificial Intelligence*, 32:333–379, 1987.
- [121] E. Charniak and R. Goldman. A probabilistic model of plan recognition. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 160–165, 1991.
- [122] Y. Cheng, B. Selman, and H. Kautz. Control knowledge in planning: Benefits and tradeoffs. In *AAAI/IAAI Proceedings*, 1999.
- [123] S. Chien, D. DeCoste, R. Doyle, and P. Stolorz. Making an impact: Artificial intelligence at the Jet Propulsion Laboratory. *AI Magazine*, 18(1):103–122, 1997.
- [124] S. Chien, F. Fisher, E. Lo, H. Mortensen, and R. Greeley. Using artificial intelligence planning to automate science data analysis for large image databases. In *Knowledge Discovery and Data Mining*, pp. 1997.



- [125] S. Chien, P. Zetocha, R. Wainwright, P. Klupar, J. V. Gaasbeck, P. Cappelaere, D. Oswald, R. Sherwood, G. Rabideau, R. Castano, A. Davies, M. Burl, R. Knight, T. Stough, and J. Roden. The Techsat-21 autonomous science agent. In *Int. Conf. on Autonomous Agents*, 2002.
- [126] S. Chien, R. Sherwood, D. Tran, *et al.* Autonomous science on the EO-1 mission. In *Proceedings of the International Symposium on Artificial Intelligence, Robotics, and Automation in Space (i-SAIRAS)*, May 2003.
- [127] A. Cimatti, E. Giunchiglia, F. Giunchiglia, and P. Traverso. Planning via model checking: A decision procedure for  $\mathcal{AR}$ . In *Proceedings of the European Conference on Planning (ECP)*, pp. 130–142. LNAI 1348. Springer-Verlag, 1997.
- [128] A. Cimatti, M. Pistore, M. Roveri, and P. Traverso. Weak, strong, and strong cyclic planning via symbolic model checking. *Artificial Intelligence*, 147(1–2): 35–84, 2003.
- [129] A. Cimatti, M. Roveri, and P. Traverso. Automatic OBDD-based generation of universal plans in non-deterministic domains. In *AAAI/IAAI Proceedings*, pp. 875–881, 1998.
- [130] A. Cimatti, M. Roveri, and P. Traverso. Strong planning in non-deterministic domains via model checking. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, (June 1998), AAAI Press, pp. 36–43.
- [131] E. M. Clarke and J. M. Wing. Formal methods: State of the art and future directions. *ACM Computing Surveys*, 28(4):626–643, 1996.
- [132] S. A. Cook and D. G. Mitchell. Finding hard instances of the satisfiability problem: A survey. In Du, Gu, and Pardalos, eds. *Satisfiability Problem: Theory and Applications*, Volume 35, pp. 1–17. American Mathematical Society, 1997.
- [133] T. H. Cormen, C. E. Leiserson, and R. L. Rivest. *Introduction to Algorithms*. MIT Press, 1990.
- [134] S. Cresswell and A. Smaill. Recursive plans in linear logic. In *Proceedings of the European Conference on Planning (ECP)*, pp. 252–264, 1999.
- [135] K. Currie and A. Tate. O-PLAN: The open planning architecture. *Artificial Intelligence*, 52(1):49–86, 1991.
- [136] U. Dal Lago, M. Pistore, and P. Traverso. Planning with a language for extended goals. In *AAAI/IAAI Proceedings*, (Edmonton, Canada, August 2002): AAAI Press/The MIT Press, pp. 447–454.
- [137] M. Daniele, P. Traverso, and M. Vardi. Strong cyclic planning revisited. In *Proceedings of the European Conference on Planning (ECP)*, pp. 35–48, 1999.
- [138] D. Das, S. K. Gupta, and D. S. Nau. Generating redesign suggestions to reduce setup cost: A step towards automated redesign. *Computer Aided Design*, 28(10):763–782, 1996.

- [139] A. J. Davenport, C. Gefflot, and J. C. Beck. Slack-based techniques for robust scheduling. In A. Cesta and D. Borrajo, eds. *Proceedings of the European Conference on Planning (ECP)*, pp. 181–192, 2001.
- [140] J. Davis and A. Bobick. The representation and recognition of action using temporal templates. In *IEEE Conference on Computer Vision and Pattern Recognition*, pp. 928–934, 1997.
- [141] M. Deale, M. Yvanovich, D. Schnitzius, D. Kautz, M. Carpenter, M. Zweben, G. Davis, and B. Daun. The space shuttle ground processing scheduling system. In M. Zweben and M. Fox, eds. *Intelligent Scheduling*, Volume 35, pp. 423–449. Morgan Kaufmann, 1994.
- [142] T. Dean and M. Boddy. Reasoning about partially ordered events. *Artificial Intelligence*, 36:375–399, 1988.
- [143] T. Dean, R. Firby, and D. Miller. Hierarchical planning involving deadlines, travel time and resources. *Computational Intelligence*, 6(1):381–398, 1988.
- [144] T. Dean, L. Kaelbling, J. Kirman, and A. Nicholson. Planning with deadlines in stochastic domains. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 574–579, 1993.
- [145] T. Dean and D. McDermott. Temporal data base management. *Artificial Intelligence*, 32(1):1–55, 1987.
- [146] T. Dean and M. Wellman. *Planning and Control*. Morgan Kaufmann, 1991.
- [147] R. Dearden and C. Boutilier. Abstraction and approximate decision-theoretic planning. *Artificial Intelligence*, 89(1–2):219–283, 1997.
- [148] R. Dechter. Enhancement schemes for constraint processing: Backjumping, learning and cutset decomposition. *Artificial Intelligence*, 41(3):273–312, 1990.
- [149] R. Dechter. On the expressiveness of networks with hidden variables. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 379–385, 1990.
- [150] R. Dechter. From local to global consistency. *Artificial Intelligence*, 55:87–107, 1992.
- [151] R. Dechter, and F. Rossi. Constraint satisfaction. In *MIT Encyclopedia of the Cognitive Sciences*, (MITECS), 1998.
- [152] R. Dechter, I. Meiri, and J. Pearl. Temporal constraint networks. *Artificial Intelligence*, 49:61–95, 1991.
- [153] R. Dechter and J. Pearl. Network-based heuristics for constraint satisfaction problems. *Artificial Intelligence*, 34(1):1–38, 1987.
- [154] O. Despouys and F. Ingrand. PropicePlan: Toward a unified framework for planning and execution. In *Proceedings of the European Conference on Planning (ECP)*, pp. 280–292, 1999.
- [155] Y. Dimopoulos and A. Gerevini. Temporal planning through mixed integer programming. In *AIPS Workshop on Planning for Temporal Domains*, pp. 2–8, 2002.

- [156] M.W.M. Dissanayake, P. Newman, S. Clark, H. Durrant-Whyte, and M. Csorba. A solution to the simultaneous localization and map building (SLAM) problem. *IEEE Transactions on Robotics and Automation*, 17(3):229–241, 2001.
- [157] J. Dix, H. Munoz-Avila, D. S. Nau, and L. Zhang. IMPACTing SHOP: Putting an AI planner into a multi-agent environment. *Annals of Mathematics and AI*, 37(4):381–407, 2003.
- [158] M. B. Do and S. Kambhampati. Solving planning graph by compiling it into CSP. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 82–91, 2000.
- [159] M. B. Do and S. Kambhampati. SAPA: A domain independent heuristic metric temporal planner. In *Proceedings of the European Conference on Planning (ECP)*, pp. 109–121, 2001.
- [160] P. Doherty and J. Kvarnström. TALplanner: A temporal logic based planner. *AI Magazine*, 22(3):95–102, 2001.
- [161] C. Dousson, P. Gaborit, and M. Ghallab. Situation recognition: Representation and algorithms. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 166–172, 1993.
- [162] B. Drabble and A. Tate. The use of optimistic and pessimistic resource profiles to inform search in an activity based planner. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 243–248, 1994.
- [163] T. Drakengren and P. Jonsson. Eight maximal tractable subclasses of Allen’s algebra with metric time. *Journal of Artificial Intelligence Research*, 7:25–45, 1997.
- [164] M. E. Drummond and K. Currie. Goal Ordering in Partially Ordered Plans. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 960–965, 1989.
- [165] D. Dubois and H. Prade. Processing fuzzy temporal knowledge. *IEEE Trans. SMC*, 19(4):729–744, 1989.
- [166] D. Dubois, H. Prade, and J. Lang. Time possibilistic logic. *Fundamenta Informaticae*, 15:211–234, 1991.
- [167] E. Durfee. Scaling up agent coordination strategies. *IEEE Computer*, 34(7):39–46, 2001.
- [168] S. Edelkamp and M. Helmert. Exhibiting knowledge in planning problems to minimize state encoding length. In S. Biundo and M. Fox, eds., *Proceedings of the European Conference on Planning (ECP), LNAI*, 1809, pp. 135–147. Springer-Verlag, 1999.
- [169] S. Edelkamp and M. Helmert. On the implementation of MIPS. In *AIPS Workshop on Model-Theoretic Approaches to Planning*, pp. 18–25, 2000.
- [170] A. El-Kholy and B. Richard. Temporal and resource reasoning in planning: The ParcPlan approach. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, pp. 614–618. Wiley, 1996.

- [171] E. A. Emerson. Temporal and modal logic. In J. van Leeuwen, eds., *Handbook of Theoretical Computer Science, Volume B: Formal Models and Semantics*, pp. 995–1072. Elsevier, 1990.
- [172] M. Ernst, T. Millstein, and D. S. Weld. Automatic SAT-compilation of planning problems. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1169–1176, 1997.
- [173] K. Erol, J. Hendler, and D. S. Nau. *Semantics for Hierarchical Task-Network Planning*. Technical Report CS TR-3239, UMIACS TR-94-31, ISR-TR-95-9. University of Maryland, March 1994. <http://www.cs.umd.edu/~nau/Papers/htn-tr.ps>.
- [174] K. Erol, J. Hendler, and D. S. Nau. UMCP: A sound and complete procedure for hierarchical task-network planning. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 249–254, 1994.
- [175] K. Erol, J. Hendler, and D. S. Nau. Complexity results for hierarchical task-network planning. *Annals of Mathematics and Artificial Intelligence*, 18:69–93, 1996.
- [176] K. Erol, D. S. Nau, and V. S. Subrahmanian. Complexity, decidability and undecidability results for domain-independent planning. *Artificial Intelligence*, 76(1–2):75–88, 1995.
- [177] J. Erschler, P. Lopez, and C. Thuriot. Temporal reasoning under resource constraints: Application to task scheduling. In G. Lasker and R. Hough, eds., *Advances in Support Systems Research*, pp. 189–194, 1990.
- [178] P. Esquirol, P. Lopez, H. Fargier, and T. Schiex. Constraint programming. *Belgian Journal of Operations Research*, 35(2):5–36, 1995.
- [179] T. A. Estlin. *Using Multi-Strategy Learning to Improve Planning Efficiency and Quality*. Ph.D. thesis, Department of Computer Sciences, University of Texas at Austin, 1998.
- [180] T. A. Estlin, S. A. Chien, and X. Wang. An argument for hybrid HTN/operator-based approach to planning. In *Proceedings of the European Conference on Planning (ECP)*, pp. 184–196, 1997.
- [181] T. A. Estlin and R. J. Mooney. Learning to improve both efficiency and quality of planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1227–1232.
- [182] O. Etzioni. A structural theory of explanation-based learning. *Artificial Intelligence*, 60:93–139, 1993.
- [183] O. Etzioni, S. Hanks, D. S. Weld, D. Draper, N. Lesh, and M. Williamson. An approach to planning with incomplete information. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, pp. 115–125, 1992.
- [184] H. Fargier, M. Jourdan, N. Layada, and T. Vidal. Using temporal constraint networks to manage temporal scenario of multimedia documents. In *ECAI Workshop on Spatial and Temporal Reasoning*, pp. 51–56, 1998.

- [185] H. Fargier, J. Lang, and T. Schiex. Mixed constraint satisfaction: A framework for decision problems under incomplete knowledge. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 175–180, 1996.
- [186] G. Ferguson and J. Allen. TRIPS: An integrated intelligent problem-solving assistant. In *AAAI/IAAI Proceedings*, pp. 567–572, 1998.
- [187] G. Ferguson, J. Allen, and B. Miller. TRAINS-95: Towards a mixed-initiative planning assistant. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 70–77, 1996.
- [188] P. Ferraris and E. Giunchiglia. Planning as satisfiability in nondeterministic domains. In *AAAI/IAAI Proceedings*, 2000.
- [189] R. Fikes and N. Nilsson. STRIPS: A new approach to the application of theorem proving to problem solving. *Artificial Intelligence*, 2(3–4):189–208, 1971.
- [190] R. J. Firby. Building symbolic primitives with continuous control routines. In J. Hendler, eds., *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 62–69, Morgan Kaufmann, 1992.
- [191] R. J. Firby. Task networks for controlling continuous processes. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 49–54, 1994.
- [192] M. Fox and D. Long. The automatic inference of state invariants in TIM. *Journal of Artificial Intelligence Research*, 9:367–421, 1998.
- [193] M. Fox and D. Long. Utilizing automatically inferred invariants in graph construction and search. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 102–111, 2000.
- [194] M. Fox and D. Long. PDDL+ Level5: An extension to PDDL2.1 for modeling domains with continuous time-dependent effects. Technical note, University of Durham, September 2001.
- [195] M. Fox and D. Long. International planning competition. <http://www.dur.ac.uk/d.p.long/competition.html>, 2002.
- [196] M. Fox and D. Long. PDDL2.1: An extension to PDDL for expressing temporal planning domains. In <http://www.dur.ac.uk/d.p.long/competition.html>, 2002.
- [197] M. Fox and S. Smith. ISIS: A knowledge-based system for factory scheduling. *Expert Systems*, 1(1):25–49, 1984.
- [198] J. Frank and A. Jonsson. Constraint-based attribute and interval planning. *Constraints*, 8(4): 339–364, October 2003.
- [199] J. Frank, A. Jonsson, R. Morris, and D. Smith. Planning and scheduling for fleets of earth observing satellites. In *International Symposium on Artificial Intelligence, Robotics, Automation and Space*, 2001.
- [200] S. French. *Sequencing and Scheduling: An Introduction to the Mathematics of the Job Shop*. Horwood, 1982.
- [201] E. C. Freuder. A sufficient condition for backtrack-free search. *Communications of the ACM*, 29(1):24–32, 1982.

- [202] E. C. Freuder. Synthesizing constraint expressions. *Communications of the ACM*, 21(11):958–966, 1978.
- [203] P. Friedland and Y. Iwasaki. The concept and implementation of skeletal plans. *Journal of Automated Reasoning*, 1(2):161–208, 1985.
- [204] P. Gaborit. Planification distribuée pour la coopération multi-agents. Ph.D. thesis 96494, LAAS-CNRS, 1996.
- [205] F. Garcia and P. Laborie. Hierarchisation of the search space in temporal planning. In *Proceedings of the European Workshop on Planning (EWSP)*, pp. 235–249, 1995.
- [206] M. R. Garey and D. S. Johnson. *Computers and Intractability: A Guide to the Theory of NP-Completeness*. W. H. Freeman, 1979.
- [207] A. Garland, K. Ryall, and C. Rich. Learning hierarchical task models by defining and refining examples. In *First International Conference on Knowledge Capture*, pp. 44–51, 2001.
- [208] A. Garrido. A temporal planning system for level 3 durative actions of PDDL2.1. In *AIPS Workshop on Planning for Temporal Domains*, pp. 56–66, 2002.
- [209] S. I. Gass. *Linear Programming*, 5th ed., Thomson International Publishing, 1985.
- [210] E. Gat. ESL: A language for supporting robust plan execution in embedded autonomous agents. In *Proceedings of the 1997 Aerospace Conference*, pp. 319–324, 1997.
- [211] E. Gat and B. Pell. Abstract resource management in an unconstrained plan execution system. In *Proceedings of the 1998 Aerospace Conference*, 1998.
- [212] F. Gavril. Algorithms for maximum coloring, maximum clique, minimum covering by cliques and maximum independent set of a chordal graph. *SIAM, Journal on Computing*, 1:180–187, 1972.
- [213] B. Gazen and C. Knoblock. Combining the expressivity of UCPOP with the efficiency of Graphplan. In *Proceedings of the European Conference on Planning (ECP)*, pp. 221–233, 1997.
- [214] M. Georgeff and F. Ingrand. Decision-making in an embedded reasoning system. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1989.
- [215] M. Georgeff and A. L. Lansky. Procedural knowledge. *Proceedings of IEEE*, 74(10):1383–1398, 1986.
- [216] A. Gerevini and L. Schubert. Efficient algorithms for handling qualitative reasoning about time. *Artificial Intelligence*, 74(1):207–248, 1995.
- [217] A. Gerevini and L. Schubert. Accelerating partial-order planners: Some techniques for effective search control and pruning. *Journal of Artificial Intelligence Research*, 5:95–137, 1996.
- [218] A. Gerevini and L. Schubert. Inferring state constraints for domain-independent planning. In *AAAI/IAAI Proceedings*, 1998.

- [219] A. Gerevini and L. Schubert. Discovering state constraints in DISCOPLAN: Some new results. In *AAAI/IAAI Proceedings*, 2000.
- [220] A. Gerevini and I. Serina. LPG: A planner based on local search for planning graphs. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 968–973, 2002.
- [221] M. Gervasio, W. Iba, and P. Langley. Case-based seeding for an interactive crisis response assistant. In D. Aha and J. Daniels, eds. *Case-Based Reasoning Integrations: Papers from the 1998 Workshop* (Technical Report WS-98-15). AAAI Press, 1998.
- [222] M. Ghallab. On chronicles: Representation, on-line recognition and learning. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, pp. 597–606, 1996.
- [223] M. Ghallab, R. Alamai, and R. Chatila. Dealing with time in planning and execution monitoring. In R. Bolles and B. Roth, eds. *Robotics Research 4*, pp. 431–443. MIT Press, 1987.
- [224] M. Ghallab and H. Laruelle. Representation and control in IxTeT, a temporal planner. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 61–67, 1994.
- [225] M. Ghallab and A. Mounir-Alaoui. Managing efficiently temporal relations through indexed spanning trees. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1297–1303, 1989.
- [226] M. Ghallab and T. Vidal. Focusing on a sub-graph for managing efficiently numerical temporal constraints. In *Proceedings of Florida AI Research Symposium (FLAIRS)*, 1995.
- [227] Y. Gil. *Acquiring Domain Knowledge for Planning by Experimentation*. Ph.D. thesis, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, 1992.
- [228] Y. Gil. Learning new planning operators by exploration and experimentation. In *Proceedings of the AAAI Workshop on Learning Action Models* (Washington, DC) 1993.
- [229] Y. Gil. Learning by experimentation: Incremental refinement of incomplete planning domains. In *Proceedings of the International Conference on Machine Learning (ICML)*, 1994.
- [230] M. Ginsberg. Partition search. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 228–233, 1996.
- [231] E. Giunchiglia. Planning as satisfiability with expressive action languages: Concurrency, constraints and nondeterminism. In *Proceedings of the Seventh International Conference on Principles of Knowledge Representation and Reasoning (KR'00)*, 2000.
- [232] E. Giunchiglia, A. Massarotto, and R. Sebastiani. Act, and the rest will follow: Exploiting determinism in planning as satisfiability. In *AAAI/IAAI Proceedings*, 1998.
- [233] F. Giunchiglia. Using ABSTRIPS abstractions—where do we stand? *Artificial Intelligence Review*, 13(3):201–213, 1999.

- [234] F. Giunchiglia and P. Traverso. Planning as model checking. In *Proceedings of the European Conference on Planning (ECP)*, pp. 1–20, 1999.
- [235] K. Goldberg, D. Halperin, J. C. Latombe, and R. Wilson, eds. *Algorithmic Foundations of Robotics*. A K Peters, 1995.
- [236] K. Golden, O. Etzioni, and D. S. Weld. Omnipotence without omniscience: Sensor management in planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 1048–1054, 1994.
- [237] K. Golden, W. Pang, R. Nemani, and P. Votava. Automating the processing of earth observation data. In *Proceedings of the International Symposium on Artificial Intelligence, Robotics, and Automation in Space (i-SAIRAS)*, 2003.
- [238] R. P. Goldman, M. Pelican, and D. Musliner. Hard real-time mode logic synthesis for hybrid control: A CIRCA-based approach. Working notes of the 1999 AAAI Spring Symposium on Hybrid Control, March 1999.
- [239] R. P. Goldman, C. W. Geib, and C. A. Miller. A new model of plan recognition. In *Uncertainty in AI*, 1999.
- [240] R. P. Goldman, D. J. Musliner, K. D. Krebsbach, and M. S. Boddy. Dynamic abstraction planning. In *AAAI/IAAI Proceedings*, pp. 680–686. AAAI Press, 1997.
- [241] R. P. Goldman, D. J. Musliner, and M. J. Pelican. Using model checking to plan hard real-time controllers. In *AIPS Workshop on Model-Theoretic Approaches to Planning* (Breckenridge, CO, April 2000).
- [242] M. Golumbic and R. Shamir. Complexity and algorithms for reasoning about time. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 741–747, 1992.
- [243] M. Golumbic and R. Shamir. Complexity and algorithms for reasoning about time: A graph-theoretic approach. *Journal of the ACM*, 40(5):1108–1133, 1993.
- [244] C. Gomes, B. Selman, and H. Kautz. Boosting combinatorial search through randomization. In *AAAI/IAAI Proceedings*, 1998.
- [245] J. Goodman and J. O'Rourke. *Handbook of Discrete and Computational Geometry*. CRC Press, 1997.
- [246] M. Grabish. Temporal scenario modeling and recognition based on possibilistic logic. *Artificial Intelligence*, 148:261–289, 2003.
- [247] R. L. Graham, E. Lawler, J. Lenstra, and A. R. Kan. Optimization and approximation in deterministic sequencing and scheduling: A survey. *Annals of Discrete Mathematics*, 5:287–326, 1979.
- [248] R. L. Graham, D. E. Knuth, and O. Patashnik. *Concrete Mathematics: A Foundation for Computer Science*. Addison-Wesley, 1989.
- [249] C. Green. Application of theorem proving to problem solving. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1969.
- [250] G. A. Grün. An efficient algorithm for the maximum distance problem. *Discrete Mathematics and Theoretical Computer Science*, 4:323–350, 2001.



- [251] E. Guere and R. Alami. One action is enough to plan. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2001.
- [252] K. Gupta and A. del Pobil, eds. *Practical Motion Planning in Robotics*. Wiley, 1998.
- [253] N. Gupta and D. S. Nau. On the complexity of blocks-world planning. *Artificial Intelligence*, 56(2–3):323–342, 1992.
- [254] S. K. Gupta and D. S. Nau. A systematic approach for analyzing the manufacturability of machined parts. *Computer Aided Design*, 27(5):342–343, 1995.
- [255] K. J. Hammond. Learning to anticipate and avoid planning problems through the explanation of failures. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, 1986.
- [256] K. J. Hammond. *Case-Based Planning: Viewing Learning as a Memory Task*. New York: Academic Press, 1989.
- [257] S. Hanks and D. S. Weld. A domain-independent algorithm for plan adaptation. *Journal of Artificial Intelligence Research*, 2:319–360, 1995.
- [258] E. A. Hansen and S. Zilberstein. Heuristic search in cyclic AND-OR graphs. In *AAAI/IAAI Proceedings*, 1998.
- [259] D. Harel. Dynamic logic. In D. Gabbay and F. Guenther, eds. *Handbook of Philosophical Logic*, Volume 2, pp. 497–604. D. Reidel Publishing, 1984.
- [260] P. Haslum and H. Geffner. Admissible heuristics for optimal planning. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 140–149, 2000.
- [261] P. Haslum and H. Geffner. Heuristic planning with time and resources. In *Proceedings of the European Conference on Planning (ECP)*, pp. 121–132, 2001.
- [262] P. Haslum and P. Jonsson. Some results on the complexity of planning with incomplete information. In S. Biundo, ed., *Proceedings of the European Conference on Planning (ECP)*, 1999.
- [263] C. Hayes. A model of planning for plan efficiency: Taking advantage of operator overlap. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, (Detroit, MI) pp. 949–953, 1989.
- [264] J. Hayet, F. Lerasle, and M. Devy. Planar landmarks to localize a mobile robot. In *SIRS'2000*, pp. 163–169, 2000.
- [265] R. Hayward, C. Hoang, and F. Maffray. Optimizing weakly triangulated graphs. *Graphs and Combinatorics*, 5(4):339–350, 1989.
- [266] F. Heintz. Chronicle recognition in the WITAS UAV project. In *The Swedish AI Society's Annual Conference* (Skövde, Sweden, 2001), 2001.
- [267] J. Hertzberg and A. Hertz. Towards a theory of conflict detection and resolution in nonlinear plans. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 937–942, 1989.
- [268] J. Hertzberg, H. Jaeger, U. Zimmer, and P. Morignot. A framework for plan execution in behavior-based robots. In *Proceedings of the 1998 IEEE International Symposium on Intelligent Control*, pp. 8–13, 1998.

- [269] J. Hoey, R. St-Aubin, A. Hu, and C. Boutilier. SPUDD: Stochastic Planning Using Decision Diagrams. In *Proceedings of the Conference on Uncertainty in Artificial Intelligence (UAI)*, 1999.
- [270] J. Hoffmann. A heuristic for domain independent planning and its use in an enforced hill-climbing algorithm. In *Proceedings of the 12th International Symposium on Methodologies for Intelligent Systems* (Charlotte, NC, October 2000).
- [271] J. Hoffmann. FF: The Fast-Forward planning system. *AI Magazine*, 22(3): 57–62, 2001.
- [272] J. Hoffmann and B. Nebel. The FF planning system: Fast plan generation through heuristic search. *Journal of Artificial Intelligence Research*, 14:253–302, 2001.
- [273] D. Hsu, L. Kavraki, J. Latombe, R. Motwani, and S. Sorkin. On finding narrow passages with probabilistic roadmap planners. In P. A. et al., eds., *Robotics: The Algorithmic Perspective (WAFR98)*, 1998.
- [274] IBM. How Deep Blue works, 1997. <http://www.chess.ibm.com/meet/html/d.3.2.html>.
- [275] L. Ihrig and S. Kambhampati. Derivational replay for partial order planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 992–997. AAAI Press, 1994.
- [276] L. Ihrig and S. Kambhampati. *Plan-Space vs. State-Space Planning in Reuse and Replay*. Technical report. Arizona State University, 1996.
- [277] L. Ihrig and S. Kambhampati. Storing and indexing plan derivations through explanation-based analysis of retrieval failures. *Journal of Artificial Intelligence Research*, 7:161–198, 1997.
- [278] O. Ilghami, D. S. Nau, H. Muñoz-Avila, and D. Aha. CaMeL: Learning methods for HTN planning. In *AIPS-2002* (Toulouse, France, 2002).
- [279] F. Ingrand and M. Georgeff. An architecture for real-time reasoning and system control. *IEEE Expert*, 6:33–44, 1992.
- [280] H. Inoue, S. Tachi, Y. Nakamura, K. Hirai, N. Ohyu, S. Hirai, K. Tanie, K. Yokoi, and H. Hirukawa. Overview of humanoid robotics project of METI. In *32nd International Symposium on Robotics*, 2001.
- [281] R. Jensen and M. Veloso. OBDD-based universal planning for synchronized agents in non-deterministic domains. *Journal of Artificial Intelligence Research*, 13:189–226, 2000.
- [282] R. Jensen, M. Veloso, and R. Bryant. Guided symbolic universal planning. In *International Conference on Automated Planning and Scheduling (ICAPS)* (Trento, June, 2003), AAAI Press.
- [283] R. M. Jensen, M. M. Veloso, and M. H. Bowling. OBDD-based optimistic and strong cyclic adversarial planning. In *Proceedings of the European Conference on Planning (ECP)*, 2001.

- [284] D. Johnson, C. Aragon, L. McGeoch, and C. Schevon. Optimization by simulated annealing: An experimental evaluation, part ii. *Journal of Operations Research*, 39(3):378–406, 1991.
- [285] A. K. Jonson, P. Morris, N. Muscettola, and K. Rajan. Planning in interplanetary space: theory and practice. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 2000.
- [286] P. Jonsson and C. Bäckström. State-variable planning under structural restrictions: Algorithms and complexity. *Artificial Intelligence*, 100(1–2):125–176, 1998.
- [287] P. Jonsson, T. Drakengren, and C. Bäckström. Computational complexity of relating time points and intervals. *Artificial Intelligence*, 109:273–295, 1999.
- [288] D. Joslin and M. Pollack. Least-cost flaw repair: A plan refinement strategy for partial-order planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, 1994.
- [289] D. Joslin and M. Pollack. Passive and active decision postponement in plan generation. In *Proceedings of the European Conference on Planning (ECP)*, 1995.
- [290] D. Joslin and M. Pollack. Is “early commitment” in plan generation ever a good idea? In *AAAI/IAAI Proceedings*, pp. 1188–1193, 1996.
- [291] D. Joslin and J. Roach. A theoretical analysis of conjunctive-goal problems. *Artificial Intelligence*, 41, 1990.
- [292] N. Jussien and O. Lhomme. Local search with constraint propagation and conflict-based heuristics. *Artificial Intelligence*, 139(1):21–45, 2002.
- [293] F. Kabanza, M. Barbeau, and R. St-Denis. Planning control rules for reactive agents. *Artificial Intelligence*, 95(1):67–113, 1997.
- [294] L. P. Kaelbling, M. L. Littman, and A. R. Cassandra. Partially observable Markov decision processes for artificial intelligence. In *Proceedings of Reasoning with Uncertainty in Robotics*, 1995.
- [295] S. Kambhampati. On the utility of systematicity: Understanding the trade-offs between redundancy and commitment in partial-order planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1380–1385, 1993.
- [296] S. Kambhampati. Multi-contributor causal structures for planning: A formalization and evaluation. *Artificial Intelligence*, 69(1–2):235–278, 1994.
- [297] S. Kambhampati. A comparative analysis of partial order planning and task reduction planning. *SIGART Bulletin*, 6(1), 1995.
- [298] S. Kambhampati. On the relations between intelligent backtracking and failure-driven explanation-based learning in constraint satisfaction and planning. *Artificial Intelligence*, 105(1–2):161–208, 1998.
- [299] S. Kambhampati. Improving Graphplan search with EBL and DDB techniques. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 982–987, 1999.

- [300] S. Kambhampati. Planning graph as (dynamic) CSP: Exploiting EBL, DDB and other CSP techniques in Graphplan. *Journal of Artificial Intelligence Research*, 12:1–34, 2000.
- [301] S. Kambhampati and J. A. Hendler. A validation structure based theory of plan modification and reuse. *Artificial Intelligence*, 55:193–258, 1992.
- [302] S. Kambhampati, C. Knoblock, and Q. Yang. Planning as refinement search: A unified framework for evaluating design tradeoffs in partial-order planning. *Artificial Intelligence*, 76(1–2):167–238, 1995.
- [303] S. Kambhampati and D. S. Nau. On the nature and role of modal truth criteria in planning. *Artificial Intelligence*, 82(2), 1996.
- [304] S. Kambhampati and R. S. Nigenda. Distance based goal ordering heuristics for Graphplan. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 315–322, 2000.
- [305] S. Kambhampati, E. Parker, and E. Lambrecht. Understanding and extending Graphplan. In *Proceedings of the European Conference on Planning (ECP)*, pp. 260–272, 1997.
- [306] S. Kambhampati and X. Yang. On the role of disjunctive representations and constraint propagation in refinement planning. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, 1996.
- [307] L. N. Kanal and V. Kumar, eds. *Search in Artificial Intelligence*. New York: Springer-Verlag, 1988.
- [308] F. Kanehiro, M. Inaba, H. Inoue, H. Hirukawa, and S. Hirai. Developmental software environment that is applicable to small-size humanoids and life-size humanoids. In *IEEE International Conference on Robotics and Automation (ICRA)*, 2001.
- [309] S. Katukam and S. Kambhampati. Learning explanation-based search control rules for partial-order planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 582–587, 1994.
- [310] H. Kautz. A formal theory of plan recognition and its implementation. In Allen *et al.* [15], pp. 69–125, 1991.
- [311] H. Kautz and J. Allen. Generalized plan recognition. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 32–37, 1986.
- [312] H. Kautz, D. McAllester, and B. Selman. Encoding plans in propositional logic. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, 1996.
- [313] H. Kautz and B. Selman. Planning as satisfiability. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, 1992.
- [314] H. Kautz and B. Selman. Pushing the envelope: Planning, propositional logic and stochastic search. In *AAAI/IAAI Proceedings*, 1996.
- [315] H. Kautz and B. Selman. The role of domain-specific knowledge in the planning as satisfiability framework. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 1998.

- [316] H. Kautz and B. Selman. Unifying SAT-based and graph-based planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 318–325, 1999.
- [317] H. Kautz and J. P. Walser. State-space planning by integer optimization. In *AAAI/IAAI Proceedings*, pp. 526–533, 1999.
- [318] H. Kautz. Planning with first order dynamic logic. In *Proceedings of the CSCSI/SCEIO*, pp. 19–26, 1982.
- [319] L. Kavraki. Algorithms in robotics: The motion planning perspective. In *Frontiers of Engineering Publication*, pp. 90–93. *National Academy of Engineering*, 1999.
- [320] L. Kavraki, M. Kolountzakis, and J. Latombe. Analysis of probabilistic roadmaps for path planning. *IEEE Transactions on Robotics and Automation*, 14(1):166–171, 1998.
- [321] L. Kavraki, P. Svestka, J. Latombe, and M. Overmars. Probabilistic roadmaps for path planning in high-dimensional configuration spaces. *IEEE Transactions on Robotics and Automation*, 12(4):566–580, 1996.
- [322] B. P. Kettler, J. A. Hendler, W. A. Andersen, and M. P. Evett. Massively parallel support for case-based planning. *IEEE Expert*, 2:8–14, 1994.
- [323] L. Khatib, P. Morris, R. Morris, and F. Rossi. Temporal constraint reasoning with preferences. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, Morgan Kaufmann, 2001.
- [324] S. Kirkpatrick, C. D. Gelatt, and M. P. Vecchi. Optimization by simulated annealing. *Science*, 220:671–681, 1983.
- [325] C. A. Knoblock. Automatically generating abstractions for planning. *Artificial Intelligence*, 68(2):243–302, 1994.
- [326] C. A. Knoblock, J. D. Tenenbergs, and Q. Yang. Characterizing abstraction hierarchies for planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 692–698, 1991.
- [327] C. A. Knoblock and Q. Yang. Relating the performance of partial-order planning algorithms to domain features. *SIGART Bulletin*, 6(1), 1995.
- [328] D. E. Knuth and R. W. Moore. An analysis of alpha-beta pruning. *Artificial Intelligence*, 6:293–326, 1975.
- [329] J. Koehler. Flexible plan reuse in a formal framework. In *Proceedings of the European Conference on Planning (ECP)*, IOS Press, 1993.
- [330] J. Koehler. Planning under resource constraints. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, pp. 489–493, 1998.
- [331] J. Koehler. Handling of conditional effects and negative goals in IPP. Technical note 128. Freiburg University, 1999.
- [332] J. Koehler, B. Nebel, J. Hoffmann, and Y. Dimopoulos. Extending planning graphs to an ADL subset. In *Proceedings of the European Conference on Planning (ECP)*, pp. 275–287, 1997.

- [333] S. Koenig and R. Simmons. Solving robot navigation problems with initial pose uncertainty using real-time heuristic search. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 1998.
- [334] G. Kondrack and P. van Beek. A theoretical evaluation of selected backtracking algorithms. *Artificial Intelligence*, 98:365–387, 1997.
- [335] R. Korf. Depth-first iterative-deepening: An optimal admissible tree search. *Artificial Intelligence*, 27:97–109, 1985.
- [336] R. Korf. Planning as search: A quantitative approach. *Artificial Intelligence*, 33:65–88, 1987.
- [337] D. Kortenkamp, R. Bonasso, and R. Murphy, eds. *AI-Based Mobile Robots: Case Studies of Successful Robot Systems*. MIT Press, 1997.
- [338] J. Kuffner and S. Lavalley. RRT-connect: An efficient approach to single-query path planning. In *IEEE International Conference on Robotics and Automation (ICRA)*, 2000.
- [339] V. Kumar. Algorithms for constraint satisfaction problems: A survey. *AI Magazine*, 13(1):32–44, 1992.
- [340] N. Kushmerick, S. Hanks, and D. S. Weld. An algorithm for probabilistic planning. *Artificial Intelligence*, 76(1–2):239–286, 1994.
- [341] J. Kvarnström. Applying domain analysis techniques for domain-dependent control in TALplanner. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 101–110. AAAI Press, 2002.
- [342] J. Kvarnström and P. Doherty. TALplanner: A temporal logic based forward chaining planner. *Annals of Mathematics and Artificial Intelligence*, 30:119–169, 2001.
- [343] J. Kvarnström, P. Doherty, and P. Haslum. Extending TALplanner with concurrency and resources. In *Proceedings of the European Conference on Planning (ECP)*, 2000.
- [344] P. Laborie. Algorithm for propagating resource constraints in AI planning and scheduling existing approaches and new results. In A. Cesta and D. Borrajo, eds., *Proceedings of the European Conference on Planning (ECP)*, pp. 205–216, 2001.
- [345] P. Laborie. Algorithms for propagating resource constraints in AI planning and scheduling: Existing approaches and new results. *Artificial Intelligence*, 143(2):151–188, 2003.
- [346] P. Laborie and M. Ghallab. Planning with sharable resource constraints. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1643–1649, 1995.
- [347] S. Lacroix and R. Chatila. Motion and perception strategies for outdoor mobile robot navigation in unknown environments. In O. Khatib and J. K. Salisbury, eds., *International Symposium on Experimental Robotics*, pp. 538–547. LNCIS 223. Springer-Verlag, 1997.

- [348] J. E. Laird, P. S. Rosenbloom, and A. Newell. Chunking in SOAR: The anatomy of a general learning mechanism. *Machine Learning*, 1:11–46, 1986.
- [349] F. Lamiroux, S. Sekhavat, and J. Laumond. Motion planning and control for Hilare pulling a trailer. *IEEE Transactions on Robotics and Automation*, 15(4), 1999.
- [350] T. Lane and L. Kaelbling. Nearly deterministic abstractions of Markov decision processes. In *AAAI/IAAI Proceedings*, 2002.
- [351] P. Langley. *Elements of Machine Learning*. San Francisco, CA: Morgan Kaufmann, 1996.
- [352] A. L. Lansky and L. C. Getoor. Scope and abstraction: Two criteria for localized planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1612–1618. 1995.
- [353] J. C. Latombe. *Robot Motion Planning*. Kluwer Academic Publishers, 1991.
- [354] J. C. Latombe. Motion planning: A journey of robots, molecules, digital actors, and other artifacts. *International Journal of Robotics Research*, 18(11):1119–1128, 1999.
- [355] E. Lawler, J. Lenstra, A. R. Kan, and D. Shmoys. Sequencing and scheduling: Algorithms and complexity. In S. Graves, A. R. Kan, and P. Zipkin, eds., *Logistics of Production and Inventory*, Handbooks in Operations Research and Management Science, Volume 4, pp. 445–552, 1993.
- [356] D. Leake, A. Kinley, and D. Wilson. A case study of case-based CBR. In *Proceedings of the International Conference on Case-Based Reasoning (ICCBR)*, pp. 371–382. Springer-Verlag, 1997.
- [357] D. Leake, A. Kinley, and D. Wilson. Acquiring case adaptation knowledge: A hybrid approach. In *AAAI/IAAI Proceedings*, pp. 684–689. AAAI Press, 1996.
- [358] C. Leckie and I. Zukerman. Inductive learning of search control rules for planning. *Artificial Intelligence*, 101:63–98, 1998.
- [359] Y. Lesperance, H. Levesque, L. F. Lin, D. Marcus, R. Reiter, and R. Scherl. A logical approach to high-level robot programming—a progress report. In *Control of the Physical World by Intelligent Systems: AAAI Fall Symposium*, 1994.
- [360] H. Levesque, R. Reiter, Y. Lesperance, F. Lin, and R. Scherl. GOLOG: A logic programming language for dynamic domains. *Journal of Logic Programming*, 31:59–83, 1997.
- [361] V. Liatsos and B. Richard. Scalability in planning. In S. Biundo and M. Fox, eds., *Proceedings of the European Conference on Planning (ECP)*, volume 1809 of *Lecture Notes in Artificial Intelligence (LNAI)*, pp. 49–61. Springer-Verlag, 1999.
- [362] V. Lifschitz. On the semantics of STRIPS. In M. P. Georgeff and A. L. Lansky, eds., *Reasoning about Actions and Plans*, pp. 1–9. Los Altos, CA: Morgan Kaufmann, 1987. Reprinted in Allen *et al.* [14], pp. 523–530, 1990.
- [363] G. Ligozat. On generalized interval calculi. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 234–240, 1991.
- [364] M. L. Littman. Markov games as a framework for multi-agent reinforcement learning. In *Proceedings of ICML 94*, pp. 157–163, 1994.

- [365] M. L. Littman. Probabilistic propositional planning: Representations and complexity. In *AAAI/IAAI Proceedings*, pp. 748–761. Providence, RI, AAAI Press/MIT Press, 1997.
- [366] M. L. Littman, J. Goldsmith, and M. Mundhenk. The computational complexity of probabilistic planning. *Journal of Artificial Intelligence Research*, 9:1–36, 1998.
- [367] D. Long and M. Fox. Efficient implementation of the plan graph in STAN. *Journal of Artificial Intelligence Research*, 10(1–2):87–115, 1999.
- [368] D. Long and M. Fox. Encoding temporal planning domains and validating temporal plans. In *UK Planning and Scheduling SIG*, 2001.
- [369] A. Lopatin. Two combinatorial problems in programming bridge game. Computer Olympiad, 1992.
- [370] A. Lotem and D. S. Nau. New advances in GraphHTN: Identifying independent subproblems in large HTN domains. In *Proceedings of the International Conference on AI Planning Systems (AIPS)* (Breckenridge, CO, April 14–17, 2000), pp. 206–215.
- [371] D. M. Lyons. Representing and analysing action plans as networks of concurrent processes. *IEEE Transactions on Robotics and Automation*, 9(3):241–256, 1993.
- [372] D. M. Lyons and A. J. Hendriks. Testing incremental adaptation. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 116–121, 1994.
- [373] A. Mackworth. Consistency in networks of relations. *Artificial Intelligence*, 8(1):99–118, 1977.
- [374] O. Maler, A. Pnueli, and J. Sifakis. On the synthesis of discrete controllers for timed systems. In *STACS, LNCS 900*, pp. 229–242. Springer-Verlag, 1995.
- [375] J. Malik and T. Binford. Reasoning in time and space. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 343–345, 1983.
- [376] O. Maller. Timed automata as an underlying model for planning and scheduling. In *AIPS Workshop on Planning in Temporal Domains*, pp. 67–70, 2002.
- [377] Z. Manna and R. Waldinger. How to clear a block: Plan formation in situation logic. *Journal of Automated Reasoning*, 3:343–377, 1997.
- [378] Z. Manna, R. Waldinger, A. Apostolico, and Z. Galil. Fundamentals of deductive program synthesis. In *Combinatorial Algorithms on Words, NATO ISI Series*. Springer-Verlag, 1992.
- [379] K. Mariott and P. Stuckey. *Programming with Constraints: An Introduction*. MIT Press, 1998.
- [380] A. Martelli and U. Montanari. Additive AND/OR graphs. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1–11, 1973.
- [381] D. McAllester and D. Rosenblitt. Systematic nonlinear planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 634–639, 1991.
- [382] J. McCarthy. *Formalizing Common Sense: Papers by John McCarthy*. Ablex Publishing, 1990.



- [383] J. McCarthy and P. J. Hayes. Some philosophical problems from the standpoint of artificial intelligence. In B. Meltzer and D. Michie, eds., *Machine Intelligence 4*, pp. 463–502. Edinburgh University Press, 1969. Reprinted in McCarthy [382], 1990.
- [384] T. McCluskey, M. Fox, and R. Aylett. Planform: An open environment for building planners. *PLANET Newsletter*, 5:38–45, 2002.
- [385] T. McCluskey, D. Liu, and R. Simpson. Gipo ii: HTN planning in a tool-supported knowledge engineering environment. In E. Guinchiglia, N. Muscettola, and D. Nau, eds., *International Conference on Automated Planning and Scheduling (ICAPS)*, pp. 92–101, 2003.
- [386] D. McDermott. A temporal logic for reasoning about processes and plans. *Cognitive Science*, 6:101–155, 1982.
- [387] D. McDermott. PDDL, the Planning Domain Definition Language. Technical report. Yale Center for Computational Vision and Control, 1998. <ftp://ftp.cs.yale.edu/pub/mcdermott/software/pddl.tar.gz>.
- [388] I. Meiri. Faster Constraint Satisfaction Algorithms for Temporal Reasoning. R-151, Los Angeles: UCLA, 1990.
- [389] I. Meiri. Combining qualitative and quantitative constraints in temporal reasoning. *Artificial Intelligence*, 87:343–385, 1996.
- [390] S. Minton. Learning Effective Search Control Knowledge: An Explanation-Based Approach. Technical Report TR CMU-CS-88-133. School of Computer Science, Carnegie Mellon University, 1988.
- [391] S. Minton. Quantitative results concerning the utility of explanation-based learning. *Artificial Intelligence*, 42:363–391, 1990.
- [392] S. Minton, J. Bresina, and M. Drummond. Commitment strategies in planning: A comparative analysis. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 259–265, 1991.
- [393] S. Minton, J. Carbonell, C. Knoblock, C. Kuokka, O. Etioni, and Y. Gil. Explanation-based learning: A problem solving perspective. *Artificial Intelligence*, 40:63–118, 1989.
- [394] S. Minton, M. Drummond, J. Bresina, and A. Philips. Total order vs. partial order planning: Factors influencing Performance. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, pp. 83–92, 1992.
- [395] S. Minton, M. Johnson, and P. Laird. Minimizing conflicts: A heuristic repair method for constraint satisfaction and scheduling algorithms. *Artificial Intelligence*, 58(1):161–206, 1992.
- [396] S. Minton, C. Knoblock, D. R. Kuokka, Y. Gil, R. L. Joseph, and J. G. Carbonell. *PRODIGY 2.0: The Manual and Tutorial*. Technical Report CMU-CS-89-146. Carnegie Mellon University, 1989.
- [397] S. Mitchell. A hybrid architecture for real-time mixed-initiative planning and control. In *Proceedings of the Innovative Applications of Artificial Intelligence Conference (IAAI)*, pp. 1032–1037, 1997.

- [398] T. M. Mitchell, S. Mahadevan, and L. Steinberg. LEAP: A learning apprentice for VLSI design. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, (Los Angeles, CA) pp. 573–580, Morgan Kaufmann, 1985.
- [399] R. Mohr and T. Henderson. Arc and path consistency revisited. *Artificial Intelligence*, 28(2):225–233, 1986.
- [400] U. Montanari. Network of constraints: Fundamental properties and applications to picture processing. *Information Science*, 7:97–132, 1974.
- [401] B. Morisset and M. Ghallab. Learning how to combine sensory-motor modalities for a robust behavior. In Beetz *et al.* [58], pp. 157–178, 2002.
- [402] B. Morisset and M. Ghallab. Synthesis of supervision policies for robust sensory-motor behaviors. In *7th International Conference on Intelligent Autonomous Systems*, pp. 236–243, 2002.
- [403] P. Morris, N. Muscettola, and T. Vidal. Dynamic control of plans with temporal uncertainty. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 494–502, 2001.
- [404] P. Moutarlier and R. G. Chatila. Stochastic multisensory data fusion for mobile robot location and environment modelling. In *Proceedings of the International Symposium on Robotics Research*, 1989.
- [405] H. Muñoz-Avila. Case-base maintenance by integrating case index revision and case retention policies in a derivational replay framework. *Computational Intelligence*, 17(2):280–294, 2001.
- [406] H. Muñoz-Avila, D. W. Aha, D. S. Nau, R. Weber, L. Breslow, and F. Yaman. SiN: Integrating case-based reasoning with task decomposition. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2001.
- [407] H. Muñoz-Avila and F. Weberskirch. Planning for manufacturing workpieces by storing, indexing and replaying planning decisions. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 1996.
- [408] N. Muscettola. HSTS: Integrating planning and scheduling. In M. Zweben and M. Fox, eds., *Intelligent Scheduling*, pp. 169–212. Morgan Kaufmann, 1994.
- [409] N. Muscettola, G. Dorais, C. Fry, R. Levinson, and C. Plaunt. IDEA: Planning at the core of autonomous reactive agents. In *International NASA Workshop on Planning and Scheduling for Space*, 2002.
- [410] N. Muscettola, P. Nayak, B. Pell, and B. Williams. Remote Agent: To boldly go where no AI system has gone before. *Artificial Intelligence*, 103(1–2):5–47, 1998.
- [411] K. L. Myers. A continuous planning and execution framework. *AI Magazine*, 20(4): 63–69, 1999.
- [412] K. L. Myers, P. A. Jarvis, W. M. Tyson, and M. J. Wolverton. A mixed-initiative framework for robust plan sketching. In *Thirteenth International Conference on Automated Planning and Scheduling (ICAPS-03)*, 2003.

- [413] D. S. Nau, T.-C. Au, O. Ilghami, U. Kuter, W. Murdock, D. Wu, and F. Yaman. SHOP2: An HTN planning system. *Journal of Artificial Intelligence Research*, 20:379–404, 2003.
- [414] D. S. Nau, Y. Cao, A. Lotem, and H. Muñoz-Avila. SHOP: Simple Hierarchical Ordered Planner. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 968–973, 1999.
- [415] D. S. Nau, V. Kumar, and L. N. Kanal. General branch and bound, and its relation to A\* and AO\*. *Artificial Intelligence*, 23(1):29–58, 1984.
- [416] D. S. Nau, H. Muñoz-Avila, Y. Cao, A. Lotem, and S. Mitchell. Total-order planning with partially ordered subtasks. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)* (Seattle, WA, August 2001).
- [417] D. S. Nau, W. C. Regli, and S. K. Gupta. AI planning versus manufacturing-operation planning: A case study. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1995.
- [418] B. Nebel. On the compilability and expressive power of propositional planning formalisms. *Journal of Artificial Intelligence Research*, 12:271–315, 2000.
- [419] B. Nebel and H. Burckert. Reasoning about temporal relations: A maximal tractable subclass of Allen’s interval algebra. *Journal of the ACM*, 42(1):43–66, 1995.
- [420] B. Nebel, Y. Dimopoulos, and J. Koehler. Ignoring irrelevant facts and operators in plan generation. In *Proceedings of the European Conference on Planning (ECP)*, pp. 340–352, 1997.
- [421] B. Nebel and J. Koehler. Plan reuse versus plan generation: A theoretical and empirical analysis. *Artificial Intelligence*, 76:427–454, 1995.
- [422] G. Nemhauser and L. Wolsey. *Integer and Combinatorial Optimization*. Wiley, 1988.
- [423] N. Nguyen and S. Kambhampati. Extracting effective and admissible state space heuristics from the planning graph. In *AAAI/IAAI Proceedings*, 2000.
- [424] N. Nguyen and S. Kambhampati. Reviving partial order planning. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2001.
- [425] N. Nguyen, S. Kambhampati, and R. Nigenda. Planning graph as the basis for deriving heuristics for plan synthesis by state space and CSP search. *Artificial Intelligence*, 135(1–2):73–123, 2002.
- [426] N. J. Nilsson. *Principles of Artificial Intelligence*. Tioga Publishing, 1980.
- [427] H. Palacios and H. Geffner. Planning as branch and bound: A constraint programming implementation. In *XVIII Latin-American Conference on Informatics (CLEI-2002)*, 2002.
- [428] C. Papadimitriou. *Computational Complexity*. Addison-Wesley, 1994.
- [429] R. Patrascu, P. Poupart, D. Schuurmans, C. Boutilier, and C. Guestrin. Greedy linear value-approximation for factored Markov decision processes. In *AAAI/IAAI Proceedings*, 2002.

- [430] J. Pearl. *Heuristics: Intelligent Search Strategies for Computer Problem Solving*. Addison-Wesley, 1985.
- [431] C. Pecheur and R. Simmons. From Livingstone to SMV. In *FAABS*, pp. 103–113, 2000.
- [432] F. Pecora and A. Cesta. Planning and scheduling ingredients for a multi-agent system. In *ICMAS*, 2002.
- [433] E. Pednault. Synthetizing plans that contain actions with context-dependent effects. *Computational Intelligence*, 4(4):356–372, 1988.
- [434] E. P. Pednault. ADL: Exploring the middle ground between STRIPS and the situation calculus. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, pp. 324–332, 1989.
- [435] E. P. Pednault. ADL and the state-transition model of action. *Journal of Logic and Computation*, 4(5):467–512, 1994.
- [436] J. Penberthy and D. S. Weld. UCPOP: A sound, complete, partial order planner for ADL. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, pp. 103–114, 1992.
- [437] J. Penberthy and D. S. Weld. Temporal planning with continuous change. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 1010–1015, 1994.
- [438] M. Peot and D. Smith. Conditional nonlinear planning. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 189–197, 1992.
- [439] C. Pinhanez and A. Bobick. Human action detection using PNF propagation of temporal constraints. In *IEEE Conference on Computer Vision and Pattern Recognition*, 1998.
- [440] M. Pistore, R. Bettin, and P. Traverso. Symbolic techniques for planning with extended goals in non-deterministic domains. In *Proceedings of the European Conference on Planning (ECP)*, Springer-Verlag, 2001.
- [441] M. Pistore and P. Traverso. Planning as model checking for extended goals in non-deterministic domains. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 479–484. Morgan Kaufmann, 2001.
- [442] D. A. Plaisted. Mechanical theorem proving. In R. B. Banerji, ed., *Formal Techniques in Artificial Intelligence*. Elsevier, 1990.
- [443] M. E. Pollack, L. Brown, D. Colbry, C. E. McCarthy, C. Orosz, B. Peintner, S. Ramakrishnan, and I. Tsamardinos. Autominder: An intelligent cognitive orthotic system for people with memory impairment. *Robotics and Autonomous Systems*, 44(3–4):273–282, 2003.
- [444] M. E. Pollack, D. Joslin, and M. Paolucci. Flaw selection strategies for partial-order planning. *Journal of Artificial Intelligence Research*, 6:223–262, 1997.
- [445] M. E. Pollack, C. E. McCarthy, S. Ramakrishnan, I. Tsamardinos, L. Brown, S. Carion, D. Colbry, C. Orosz, and B. Peintner. Autominder: A planning, monitoring,

- and reminding assistive agent. In *International Conference on Intelligent Autonomous Systems*, 2002.
- [446] P. Poupart and C. Boutilier. Value-directed belief state approximation for POMDPs. In *Proceedings of the Conference on Uncertainty in Artificial Intelligence (UAI)*, 2000.
  - [447] P. Poupart and C. Boutilier. Vector-space analysis of belief-state approximation for POMDPs. In *Proceedings of the Conference on Uncertainty in Artificial Intelligence (UAI)*, 2001.
  - [448] L. Pryor and G. Collins. Planning for contingency: A decision based approach. *Journal of Artificial Intelligence Research*, 4:81–120, 1996.
  - [449] A. Pujari and A. Sattar. A new framework for reasoning about points, intervals and durations. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1999.
  - [450] S. Quinlan and O. Khatib. Towards real-time execution of motion tasks. In R. G. Chatila and G. Hirzinger, eds., *Experimental Robotics 2*. Springer-Verlag, 1992.
  - [451] G. Rabideau, S. Chien, J. Willis, and T. Mann. Interactive, repair-based planning and scheduling for shuttle payload operations. *Artificial Intelligence*, 2004. To appear.
  - [452] S. Ram and A. Francis. Multi-plan retrieval and adaptation in an experience-based agent. In D. B. Leake, ed., *Case-Based Reasoning: Experiences, Lessons, and Future Directions*. AAAI Press/MIT Press, 1996.
  - [453] M. Redmond. Distributed cases for case-based reasoning: Facilitating use of multiple cases. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, 1990.
  - [454] J. A. Reed and R. A. Shepp. Optimal paths for a car that goes both forward and backwards. *Pacific Journal of Mathematics*, 145(2):367–393, 1990.
  - [455] W. C. Regli, S. K. Gupta, and D. S. Nau. Extracting alternative machining features: An algorithmic approach. *Research in Engineering Design*, 7(3):173–192, 1995.
  - [456] J. Rintanen. Constructing conditional plans by a theorem-prover. *Journal of Artificial Intelligence Research*, 10:323–352, 1999.
  - [457] S. Rosenschein. Plan synthesis: A logical perspective. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1981.
  - [458] S. Russel, and P. Norvig. *Artificial Intelligence: A Modern Approach*. Prentice Hall, 2003.
  - [459] E. Sacerdoti. Planning in a hierarchy of abstraction spaces. *Artificial Intelligence*, 5:115–135, 1974.
  - [460] E. Sacerdoti. The nonlinear nature of plans. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 206–214, 1975. Reprinted in Allen *et al.* [14], pp. 162–170, 1990.
  - [461] E. Sacerdoti. *A Structure for Plans and Behavior*. Elsevier, 1977.
  - [462] A. Saffiotti. Handling uncertainty in control of autonomous robots. In M. J. Wooldridge and M. Veloso, eds., *Artificial Intelligence Today*, pp. 381–408. Springer-Verlag, 1999.

- [463] E. Sandewall. *Features and Fluents*. Oxford University Press, 1995.
- [464] E. Sandewall and R. Rönquist. A representation of action structures. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 89–97, 1986.
- [465] J. Schaeffer. *One Jump Ahead: Challenging Human Supremacy in Checkers*. Springer-Verlag, 1997.
- [466] T. Schiex and G. Verfaillie. Nogood recording for static and dynamic constraint satisfaction problems. *International Journal on Artificial Intelligence Tools*, 3(2):187–207, 1994.
- [467] C. F. Schmidt, N. S. Sridharan, and J. L. Goodson. The plan recognition problem, an intersection of psychology and AI. *Artificial Intelligence*, 11(1):45–83, 1978.
- [468] J. Scott. A chess-playing program. In B. Meltzer and D. Michie, eds., *Machine Intelligence*, Volume 4, pp. 255–265. Edinburgh University Press, 1969.
- [469] B. Selman, H. Kautz, and B. Cohen. Noise strategies for local search. In *AAAI/IAAI Proceedings*, 1998.
- [470] A. Shaerf. Combining local search and look-ahead for scheduling and constraint satisfaction problems. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1254–1259, 1997.
- [471] J. Shah, M. Mantyla, and D. S. Nau, eds., *Advances in Feature Based Manufacturing*. Elsevier/North Holland, 1994.
- [472] C. Shannon. Programming a computer for playing chess. *Philosophical Magazine (Series 7)*, 41:256–275, 1950.
- [473] Y. Shoham and D. McDermott. Problems in formal temporal reasoning. *Artificial Intelligence*, 36:49–61, 1988.
- [474] Y. Shoham. Temporal logic in AI: Semantical and ontological considerations. *Artificial Intelligence*, 33:89–104, 1987.
- [475] Y. Shoham. *Reasoning about Change*. MIT Press, 1988.
- [476] T. Siméon, J. Laumond, and F. Lamiroux. Move3d: A generic platform for path planning. In *4th International Symposium on Assembly and Task Planning*, 2001.
- [477] T. Siméon, J. Laumond, and C. Nissoux. Visibility based probabilistic roadmaps for motion planning. *Advanced Robotics Journal*, 14(6):445–550, 2000.
- [478] R. Simmons. An architecture for coordinating planning, sensing and action. In *Proceedings of the Workshop on Innovative Approaches to Planning, Scheduling and Control*, pp. 292–297, 1990.
- [479] R. Simmons. Structured control for autonomous robots. *IEEE Transactions on Robotics and Automation*, 10(1):34–43, 1994.
- [480] H. Simon. *The Sciences of the Artificial*. MIT Press, 1996.
- [481] J. Slaney and S. Thiébaux. Blocks world revisited. *Artificial Intelligence*, 125(1–2): 119–153, 2001.
- [482] B. D. Smith, B. E. Engelhardt, and D. H. Mutz. The RADARSAT-MAMM Automated Mission Planner. *AI Magazine*, 23(2):25–36, 2002.

- [483] B. D. Smith, M. S. Feather, and N. Muscettola. Challenges and methods in testing the Remote Agent planner. In *Proceedings of AIPS00*, pp. 254–263, 2000.
- [484] D. Smith, J. Frank, and A. Jonsson. Bridging the gap between planning and scheduling. *Knowledge Engineering Review*, 15(1):47–83, 2000.
- [485] D. Smith and M. Peot. A critical look at Knoblock’s hierarchy mechanism. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 1992.
- [486] D. Smith and M. Peot. Postponing threats in partial-order planning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 500–506, 1993.
- [487] D. Smith and M. Peot. Suspending recursion causal-link planning. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 1996.
- [488] D. Smith and D. Weld. Conformant Graphplan. In *AAAI/IAAI Proceedings*, pp. 889–896, 1998.
- [489] D. Smith and D. Weld. Temporal planning with mutual exclusion reasoning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1999.
- [490] D. Smith and D. Weld. Conformant Graphplan. In *AAAI/IAAI Proceedings* (Menlo Park, July 26–30, 1998), pp. 889–896, AAAI Press, 1998.
- [491] S. Smith. OPIS: A methodology and architecture for reactive scheduling. In M. Zweben and M. Fox, eds., *Intelligent Scheduling*, pp. 29–65. Morgan Kaufmann, 1994.
- [492] S. Smith, M. Fox, and P. Ow. Constructing and maintaining detailed production plans: Investigations into the development of knowledge-based factory scheduling systems. *AI Magazine*, 7(4):45–61, 1986.
- [493] S.J.J. Smith. *Task-Network Planning Using Total-Order Forward Search, and Applications to Bridge and to Microwave Module Manufacture*. Ph.D. thesis, University of Maryland, 1997.
- [494] S.J.J. Smith, K. Hebbar, D. S. Nau, and I. Minis. Integrating electrical and mechanical design and process planning. In M. Mantyla, S. Finger, and T. Tomiyama, eds., *Knowledge Intensive CAD*, Volume 2, pp. 269–288. Chapman and Hall, 1997.
- [495] S.J.J. Smith, D. S. Nau, and T. Throop. Computer bridge: A big win for AI planning. *AI Magazine*, 19(2):93–105, 1998.
- [496] L. Spalazzi and P. Traverso. A dynamic logic for acting, sensing, and planning. *Journal of Logic and Computation*, 10(6):787–821, 2000.
- [497] R. M. Stallman and G. J. Sussman. Forward reasoning and dependency directed backtracking in a system for computer-aided circuit analysis. *Artificial Intelligence*, 9(2):135–196, 1977.
- [498] M. Stefik. Planning with constraints. *Artificial Intelligence*, 16:111–140, 1981.
- [499] W. Stephan and S. Biundo. A new logical framework for deductive planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 32–38. Morgan Kaufmann, 1993.

- [500] V. S. Subrahmanian. Nonmonotonic logic programming. *IEEE Transactions on Knowledge and Data Engineering*, 11(1):14–152, 1999.
- [501] G. Sussman. *A Computational Model of Skill Acquisition*. New York: Elsevier, 1975.
- [502] A. Tate. Interacting goals and their use. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 215–218, 1975.
- [503] A. Tate. Generating project networks. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 888–893, 1977.
- [504] A. Tate, B. Drabble, and R. Kirby. *O-Plan2: An Architecture for Command, Planning and Control*. Morgan Kaufmann, 1994.
- [505] A. Tate, J. Dalton, and J. Levine. O-Plan: a web-based AI planning agent. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 1131–1132, August 2000.
- [506] S. Thiebaux, F. Kabanza, and J. Slaney. Anytime state-based solution methods for decision processes with non-Markovian rewards. In *Proceedings of the Conference on Uncertainty in Artificial Intelligence (UAI)*, 2002.
- [507] S. Thrun. Learning metric-topological maps for indoor mobile robot navigation. *Artificial Intelligence*, 99(1):21–71, 1998.
- [508] S. Thrun, A. Bücken, W. Burgard, D. Fox, T. Frölinghaus, D. Hennig, T. Hofmann, M. Krell, and T. Schmidt. Map learning and high-speed navigation in RHINO. In Kortenkamp et al. [337], 1997.
- [509] S. Thrun, W. Burgard, and D. Fox. A probabilistic approach to concurrent mapping and localization for mobile robots. *Machine Learning*, 31:29–53, 1998.
- [510] P. Traverso and L. Spalazzi. A logic for acting, sensing and planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 1995.
- [511] P. Traverso, M. Veloso, and F. Giunchiglia, eds. *AIPS Workshop on Model-Theoretic Approaches to Planning* (Breckenridge, CO, April 2000).
- [512] R. Trinquart and M. Ghallab. An extended functional representation in temporal planning: Towards continuous change. In A. Cesta and D. Borrajo, eds., *Proceedings of the European Conference on Planning (ECP)*, pp. 217–228, 2001.
- [513] A. Truscott. Bridge: Bridge software is improving and already beats humans in one respect: It never blames partner. *The New York Times*, page A19, August 16, 1997.
- [514] I. Tsamardinos, M. E. Pollack, and J. F. Horta. Merging plans with quantitative temporal constraints, temporally extended actions, and conditional branches. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 264–272, 2000.
- [515] E. Tsang. *Foundations of Constraint Satisfaction*. Academic Press, 1993.
- [516] R. Tsuneto, J. Hendler, and D. S. Nau. Analyzing external conditions to improve the efficiency of HTN planning. In *AAAI/IAAI Proceedings*, pp. 913–920, 1998.
- [517] R. Tsuneto, D. S. Nau, and J. Hendler. Plan-refinement strategies and search-space size. In *Proceedings of the European Conference on Planning (ECP)*, 1997.



- [518] P. van Beek. CSPLIB: A library for CSP routines. 1994. <http://ai.uwaterloo.ca/vanbeek/software/software.html>.
- [519] P. van Beek and X. Chen. Cplan: A constraint programming approach to planning. In *AAAI/IAAI Proceedings*, 1999.
- [520] J. van Benthem. *The Logic of Time*. Dordrecht, 1983.
- [521] K. van Lehn, ed. *Architectures for Intelligence*. Lawrence Erlbaum, 1990.
- [522] M. van Lent and J. Laird. Learning hierarchical performance knowledge by observation. In *Proceedings of the International Conference on Machine Learning (ICML)*, pp. 229–238. San Francisco, CA: Morgan Kaufmann, 1999.
- [523] M. Veloso. *Planning and Learning by Analogical Reasoning*. Springer-Verlag, 1994.
- [524] M. Veloso, J. Carbonell, A. Pérez, D. Borrajo, E. Fink, and J. Blythe. Integrating planning and learning: The PRODIGY architecture. *Journal of Experimental and Theoretical Artificial Intelligence*, 7(1):81–120, 1995.
- [525] M. Veloso and J. G. Carbonell. Derivational analogy in PRODIGY: Automating case acquisition, storage and utilization. *Machine Learning*, 10:249–278, 1993.
- [526] M. Veloso, A. Mulvehill, and M. Cox. Rationale-supported mixed-initiative case-based planning. In *Proceedings of the Innovative Applications of Artificial Intelligence Conference (IAAI)*, pp. 1072–1077, 1997.
- [527] M. Veloso and P. Stone. FLECS: Planning with a flexible commitment strategy. *Journal of Artificial Intelligence Research*, 3:25–52, 1995.
- [528] S. Vere. Planning in time: Windows and duration for activities and goals. *IEEE Transaction on Pattern Analysis and Machine Intelligence*, 5(3):246–264, 1983.
- [529] G. Verfaillie and T. Schiex. Solution reuse in dynamic constraint satisfaction problems. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 307–312, 1994.
- [530] T. Vidal. Controllability characterization and checking in contingent temporal constraint networks. In *Proceedings of the International Conference on Knowledge Representation and Reasoning (KR)*, pp. 559–570, 2000.
- [531] T. Vidal. A unified dynamic approach for dealing with temporal uncertainty and conditional planning. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, pp. 395–402, 2000.
- [532] T. Vidal and H. Fargier. Handling contingency in temporal constraint networks: From consistency to controllabilities. *Journal of Experimental and Theoretical Artificial Intelligence*, 11(1):23–45, 1999.
- [533] T. Vidal and M. Ghallab. Temporal constraints in planning: Free or not free? In *CONSTRAINT*, 1995.
- [534] T. Vidal and M. Ghallab. Dealing with uncertain durations in temporal constraint networks dedicated to planning. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, 1996.

- [535] T. Vidal, M. Ghallab, and R. Alami. Incremental mission allocation to a large team of robots. In *Proceedings of the IEEE International Conference on Robotics and Automation (IEEE-ICRA)*, 1996.
- [536] L. Vila. A survey on temporal reasoning in artificial intelligence. *AI Communications*, 7(1):4–28, 1994.
- [537] M. Vilain and H. Kautz. Constraint propagation algorithms for temporal reasoning. In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 377–382, 1986.
- [538] M. Vilain, H. Kautz, and P. van Beek. Constraint propagation algorithms for temporal reasoning: A revised report. In J. de Kleer and D. S. Weld, eds., *Reading in Qualitative Reasoning about Physical Systems*. Morgan Kaufmann, 1989.
- [539] T. Vossen, M. Ball, A. Lotem, and D. S. Nau. On the use of integer programming models in AI planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 304–309, 1999.
- [540] R. Waldinger. Achieving several goals simultaneously. In *Machine Intelligence 8*, pp. 94–138. Halstead and Wiley, 1977. Reprinted in Allen *et al.* [14], 1990.
- [541] T. Walsh. Stochastic constraint programming. In *Proceedings of the European Conference on Artificial Intelligence (ECAI)*, 2002.
- [542] D. Waltz. Understanding line drawings of scenes with shadows. In Winston, ed., *The Psychology of Computer Vision*. McGraw-Hill, 1975.
- [543] D.H.D. Warren. Generating conditional plans and programs. In *Proceedings of the Summer Conference on Artificial Intelligence and Simulation of Behaviour (AISB-76)*, 1976.
- [544] D. S. Weld. An introduction to least commitment planning. *AI Magazine*, 15(4):27–61, 1994.
- [545] D. S. Weld, C. R. Anderson, and D. E. Smith. Extending Graphplan to handle uncertainty and sensing actions. In *AAAI/IAAI Proceedings*, pp. 897–904. AAAI Press, 1998.
- [546] D. S. Weld and O. Etzioni. The first law of robotics (a call to arms). In *Proceedings of the National Conference on Artificial Intelligence (AAAI)*, pp. 1042–1047, 1994.
- [547] D. S. Weld and J. D. Kleer, eds., *Readings in Qualitative Reasoning about Physical Systems*. Morgan Kaufmann, 1990.
- [548] R. Wilensky. *Planning and Understanding*. Addison-Wesley, 1983.
- [549] D. Wilkins. *Practical Planning: Extending the Classical AI Planning Paradigm*. San Mateo, CA: Morgan Kaufmann, 1988.
- [550] D. Wilkins. Can AI planners solve practical problems? *Computational Intelligence*, 6(4):232–246, 1990.
- [551] D. Wilkins and M. desJardins. A call for knowledge-based planning. *AI Magazine*, 22(1):99–115, 2001.

- [552] D. Wilkins, K. L. Myers, J. D. Lowrance, and L. P. Wesley. Planning and Reacting in Uncertain and Dynamic Environments. *Journal of Experimental and Theoretical AI*, 7(1):197–227, 1995.
- [553] B. Williams and P. P. Nayak. A model based approach to reactive self-reconfiguring systems. In *AAAI/IAAI Proceedings*, pp. 971–978, 1996.
- [554] W. Winchell. *Realistic Cost Estimating for Manufacturing*. Society of Manufacturing Engineers, 1989.
- [555] T. Winograd. *Understanding Natural Language*. Academic Press, 1972.
- [556] S. A. Wolfman and D. S. Weld. The LPSAT engine and its application to resource planning. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 310–317, 1999.
- [557] M. Wolverton and M. desJardins. Controlling communication in distributed planning using irrelevance reasoning. In *AAAI/IAAI Proceedings*, pp. 868–874, 1998.
- [558] Q. Yang. Formalizing planning knowledge for hierarchical planning. *Computational Intelligence*, 6(1):12–24, 1990.
- [559] Q. Yang. A theory of conflict resolution in planning. *Artificial Intelligence*, 58:361–392, 1992.
- [560] Q. Yang. *Intelligent Planning: A Decomposition and Abstraction Based Approach*. Springer-Verlag, 1997.
- [561] Q. Yang, J. Tenenbergs, and S. Woods. On the implementation and evaluation of ABTWEAK. *Computational Intelligence*, 12(2):295–318, 1996.
- [562] J. Yolkowski. Large numbers in the universe, January 26, 2002. <http://www.stormloader.com/ajy/reallife.html>.
- [563] H. Younes and R. Simmons. *On the role of ground actions in refinement planning*, In *proceedings of the International Conference on AI Planning Systems (AIPS)*. pp. 54–61. AAAI Press, 2002.
- [564] R. M. Young, M. E. Pollack, and J. D. Moore. Decomposition and causality in partial-order planning. In *Proceedings of the International Conference on AI Planning Systems (AIPS)*, 1994.
- [565] T. Zimmerman and S. Kambhampati. Exploiting symmetry in the planning graph via explanation guided search. In *AAAI/IAAI Proceedings*, pp. 605–611, 1999.