

# Bibliography

## Classical Temporal reasoning

- [1] James F. Allen. Maintaining knowledge about temporal intervals. *Communication of the ACM*, 26(1):832–843, 1983.
- [2] James F. Allen and Johannes Koomen. Planning using a temporal world model. In *Proceedings of the Eighth International Joint Conference on Artificial Intelligence (IJCAI-83)*, pages 741–747, Karlsruhe, FRG, 1983.
- [3] James F. Allen and P. J. Hayes. Moments and points in an interval-based temporal logic. *Computational Intelligence*, 5:225–238, 1989.
- [4] Philippe Balbiani, Jean-Francois Condotta, and Gérard F. Ligozat. Reasoning about generalized intervals: Horn representability and tractability. In *Proceedings of the 7th International Workshop on Temporal Representation and Reasoning (TIME-00)*, pages 23–30, Nova Scotia, Canada, 2000.
- [5] Mathias Broxvall and Peter Jonsson. Point algebras for temporal reasoning: algorithms and complexity. *Artificial Intelligence*, 149(2):179–220, 2003.
- [6] Luca Chittaro and Carlo Combi. Representation of temporal intervals and relations: Information visualization aspects and their evaluation. In *Proceedings of TIME 2001*, pages 13–20, Cividale del Friuli, Italy, 2001.
- [7] Rina Dechter, Itay Meiri, and Judea Pearl. Temporal constraint networks. *Artificial Intelligence*, 49(1–3):61–95, 1991.
- [8] Dechter R. *Constraint Processing*. Morgan Kaufmann, 2003.

- [9] Robert Kowalski and Marek Sergot. Logic-Based Calculus of Events. *New Generation Computing*, vol. 4 pp. 6795, 1986.
- [10] Gérard F. Ligozat. On generalized interval calculi. In *Proceedings of the 9th National Conference on Artificial Intelligence (AAAI-91)*, pages 234–240, Anaheim, CA, 1991. AAAI Press / MIT Press.
- [11] Gérard F. Ligozat. A new proof of tractability for ORD-Horn relations. In *Proceedings of the 13th National Conference on Artificial Intelligence (AAAI-96)*, pages 395–402, Portland, Oregon, 1996. AAAI Press / MIT Press.
- [12] Gérard F. Ligozat. “Corner” relations in allen’s algebra. *Constraints*, 3:165–177, 1998.
- [13] Bernhard Nebel and Hans-Jürgen Bürckert. Reasoning about temporal relations: A maximal tractable subclass of Allen’s interval algebra. *Journal of the ACM*, 42(1):43–66, 1995.
- [14] Arthur Prior. Time and Modality. *Oxford Univ. Press*, London, 1957.
- [15] Lluís Vila and Eddie Schwalb. A theory of time and temporal incidence based on instants and periods. In *Proc. of Third Int. Workshop on Temporal Representation and Reasoning - Time 96*, pages 21–28, Los Alamitos, CA, 1996. IEEE Computer Society Press.
- [16] Marc Vilain, Henry Kautz, and Peter van Beek. Constraint propagation algorithms for temporal reasoning: A revised report. In Daniel S. Weld and Johan de Kleer, editors, *Readings in Qualitative Reasoning about Physical Systems*, pages 373–381. Morgan Kaufmann, San Mateo, CA, 1990.

## **Fuzzy sets and possibility theory**

- [17] M. A. Cárdenas and R. Marín. Syntax and semantics for a fuzzy temporal constraint logic. *Annals of Mathematics and Artificial Intelligence*, 36:357–380, 2002.
- [18] Didier Dubois and Henri Prade. *Possibility Theory: An Approach to Computerized Processing of Uncertainty*. Plenum Press, New York, 1988.

- [19] Didier Dubois, Allel HadjAli, and Henri Prade. Fuzziness and uncertainty in temporal reasoning. *Journal of Universal Computer Science*, 9(9):1168–1194, 2003.
- [20] Hung T. Nguyen and Elbert A. Walker. *A First Course in Fuzzy Logic, Third Edition*. Plenum Press, Chapman & Hall/CRC, 2005.
- [21] H. Prade J. M. Pires. Flexibility as relaxation – the fuzzy set view. In *CP 2000 Workshop on modelling and solving soft constraints*, Singapore, 2000.
- [22] Philippe Smets. Varieties of ignorance. *Information Sciences*, 57:135–144, 1991.
- [23] Philippe Smets. Imperfect information : Imprecision - Uncertainty. *Uncertainty Management in Information Systems. From Needs to Solutions*, A. Motro and Ph. Smets (eds.), Kluwer Academic Publishers, 225–254, 1997.
- [24] Lotfi A. Zadeh. Fuzzy sets. *Information and Control*, 8:338–353, 1965.
- [25] Lotfi A. Zadeh. Fuzzy sets as a basis for a theory of possibility. *Fuzzy Sets and Systems*, 1:3–28, 1978.

## Fuzzy constraint networks

- [26] Stefano Bistarelli, Ugo Montanari, and Francesca Rossi. Semiring-based constraint satisfaction and optimization. *Journal of the ACM*, 44(2):201–236, 1997.
- [27] Didier Dubois, Hélène Fargier, and Henri Prade. Possibility theory in constraint satisfaction problems: Handling priority, preference and uncertainty. *Applied Intelligence*, 6:287–309, 1996.
- [28] Helene Fargier. *Problemes de satisfaction de contraintes flexibles-application a l'ordonnancement de production*. PhD thesis, Universite P. Sabatier, Toulouse, France, 1994.
- [29] Massimiliano Giacomini. From crisp to fuzzy constraint networks. In *Proceedings of CP '01 Workshop "Modelling and Solving Problems with Soft Constraints"*, Paphos, Cyprus, 2001.

## Fuzzy qualitative temporal reasoning

- [30] Silvana Badaloni and Massimiliano Giacomin. A fuzzy extension of allen's interval algebra. In *AI\*IA99: Advances in Artificial Intelligence, Selected Papers - Lecture Notes in Artificial Intelligence 1792*, pages 155–165. Springer-Verlag, 2000.
- [31] Silvana Badaloni and Massimiliano Giacomin. The algebra  $ia^{fuz}$ : a framework for qualitative fuzzy temporal reasoning. *Artificial Intelligence*, 170(10):872–908, 2006.
- [32] Silvana Badaloni and Massimiliano Giacomin. newblock Fuzzy Extensions of Qualitative Algebra Tractable Fragments. In *Proc. of IJCAI07 Workshop on Spatial and Temporal Reasoning*, Hyderabad, India, 2007.
- [33] S. Dutta. An event-based fuzzy temporal logic. In *Proceedings of 18th IEEE International Symposium on Multiple-Valued Logic*, pages 64–71, Palma de Mallorca, Spain, 1988.
- [34] S. Dutta. A temporal logic for uncertain events and an outline of a possible implementation in an extension of PROLOG. In *Proceedings of the 4th AAAI Workshop on Uncertainty in Artificial Intelligence*, pages 90–97, Minnesota, 1988.
- [35] Marco Falda. A method for characterizing tractable subsets of qualitative fuzzy temporal algebras. In *Fuzzy Logic and Applications: 6th International Workshop - Revised Selected Papers*, LNAI, I. Bloch, A. Petrosino, A. G.B. Tettamanzi editors, pp. 71-80; Crema, 2005.
- [36] Hans Werner Guesgen, Joachim Hertzberg, and Anne Philpott. Towards implementing fuzzy allen relations. In *Proceedings of ECAI-94 Workshop on Spatial and Temporal Reasoning*, pages 49–55, Amsterdam, The Netherlands, 1994.
- [37] Gábor Nagypál and Boris Motik. A fuzzy model for representing uncertain, subjective, and vague temporal knowledge in ontologies. In *Proc. of the International Conference on Ontologies, Databases and Applications of Semantics (ODBASE)*, pages 906–923, 2003.

- [38] Hans Jürgen Ohlbach. Relations between fuzzy time intervals. In *Proceedings of the 11th International Symposium on Temporal Representation and Reasoning (TIME-04)*, pages 44–51, Tatihou Island, France, 2004. IEEE Computer Society.
- [39] Hans Jürgen Ohlbach. Fuzzy time intervals and relations - the future library. Technical report, Institute for Computer Science, Munich, Germany, 2004.
- [40] Steven Schockaert, Martine De Cock, and Etienne E. Kerre. Qualitative temporal reasoning about vague events. In *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI-07)*, pages 569–574, Hyderabad, India, 2007.

## **Fuzzy quantitative temporal reasoning**

- [41] Didier Dubois and Henri Prade. Processing fuzzy temporal knowledge. *IEEE Transactions of Systems, Man and Cybernetics*, 19(4):729–744, 1989.
- [42] Senen Barro, Roque Marin, Jose Mira, and Alfonso R. Paton. A model and a language for the fuzzy representation and handling of time. *Fuzzy Sets and Systems*, 61(2):153–175, 1994.
- [43] R. Marin, M. A. Cardenas, M. Balsa, and J. L. Sanchez. Obtaining solutions in fuzzy constraints networks. *International Journal of Approximated Reasoning*, 16(3–4):261–288, 1997.
- [44] Lina Khatib, Paul Morris, Robert Morris, and Francesca Rossi. Temporal constraint reasoning with preferences. In Bernhard Nebel, editor, *Proceedings of the 17th International Conference on Artificial Intelligence (IJCAI-01)*, pages 322–327, Seattle, WA, 2001.

## **Integrated systems and extensions**

- [45] Silvana Badaloni, Marco Falda, and Massimiliano Giacomin. Integrating quantitative and qualitative fuzzy temporal constraints. *AI Communications*, 17(4):187–200, 2004.

- [46] Francisco Barber. Reasoning on interval and point-based disjunctive metric constraints in temporal contexts. *Journal of AI Research*, vol. 122, pp. 3586, 2000.
  - [47] Henry A. Kautz and Peter B. Ladkin. Integrating metric and qualitative temporal reasoning. In *Proceedings of the 9th National Conference on Artificial Intelligence (AAAI-91)*, pages 241–246, Anaheim, CA, 1991. AAAI Press / MIT Press.
  - [48] I. Meiri. Combining qualitative and quantitative constraints in temporal reasoning. *Artificial Intelligence*, 87(1–2):343–385, 1996.
  - [49] Eddie Schwalb and Lluís Vila. Temporal constraints : A survey. *Constraints*, 2:129–149, 1998.
  - [50] Marc Vilain and Henry Kautz. Constraint propagation algorithms for temporal reasoning. In Tom Kehler and Stan Rosenschein, editors, *Proceedings of the 5th National Conference on Artificial Intelligence (AAAI-86)*, pages 377–382, Los Altos, CA, 1986. American Association for Artificial Intelligence, Morgan Kaufmann.
  - [51] Ioannis Tsamardinos, Thierry Vidal, and Martha E. Pollack. CTP: A new constraint-based formalism for conditional, temporal planning. *Constraints*, 8(4):365–388, 2003.
  - [52] Neil Yorke-Smith, Kristen Brent Venable, and Francesca Rossi. Uncertainty in soft temporal constraint problems: a general framework and controllability algorithms for the fuzzy case. *Journal of AI Research*, 27: 617–674, 2006.
- S
- [53] R. Wetprasit and A. Sattar. Temporal reasoning with qualitative and quantitative information about points and durations. In *Proceedings of the 15th National Conference on Artificial Intelligence (AAAI-98)*, pages 656–664, Menlo Park, 1998. AAAI Press.

## Applications

- [54] Abbod M. F., D. G. von Keyserlingk, Linkens D. A., and M. Mahfouf. Survey of utilization of fuzzy technology in medicine and healthcare. *Fuzzy Sets and Systems*, 120:331–349, 2001.
- [55] Marco Falda. Fuzzy Disjunctive Temporal Problems with Classes. *Accepted at FUZZIEEE07*, London, 2007.
- [56] Marco Falda, K. Brent Venable, and Francesca Rossi Fuzzy Conditional Temporal Problems. In *Proc. of CSCLP'07*, 148:187–201, Versailles, France, 2007.
- [57] P. Félix, S. Barro, and R. Marín. Fuzzy constraint networks for signal pattern recognition. *Artificial Intelligence*, 148:103–140, 2003.
- [58] S. A. Harrison and M. E. Price. Task scheduling for satellite based imagery. In *Proc. of Eighteenth Workshop of the UK Planning and Scheduling Special Interest Group*, pages 64–78, University of Salford, UK, 1999.
- [59] E. T. Keravnou. Temporal constraints in clinical diagnosis. *Journal of Intelligent and Fuzzy Systems*, 12(1):49–67, 2002.
- [60] M. Mahfouf, Abbod M. F., and Linkens D. A. A survey of fuzzy logic monitoring and control utilization in medicine. *Artificial Intelligence in Medicine*, 21:27–42, 2001.
- [61] J. C. Pemberton and L. Greenwald. On the need for dynamic scheduling of imaging satellites. In *Future Intelligent Earth Observing Satellites Symposium*, 2002.
- [62] F. Steimann. On the use and usefulness of fuzzy sets in medical AI. *Artificial Intelligence in Medicine*, 21:131–137, 2001.
- [63] J. Wainer and S. Sandri. Fuzzy temporal/categorical information in diagnosis. *Journal of Intelligent Information Systems*, 11:9–26, 1999.