

Uncertainty resources

(Several of these papers can be downloaded from citeseer.nj.nec.com).

Burrough P, and Frank A, (eds.) *Geographic Objects with Indeterminate Boundaries*, Taylor and Francis, London, 1996.

Charniak, E., Bayesian networks without tears. AAAI Conference, 1991.

Cohn AG and Gotts NM, The 'egg-yolk' representation of regions with indeterminate boundaries. In P. Burrough, and A. Frank, (eds.) *Geographic Objects with Indeterminate Boundaries*, Taylor and Francis, London, pp. 171-187, 1996.

Cohn, A. and Gotts, N., A theory of spatial regions with indeterminate boundaries. In C. Eschenbach, C. Habel and B. Smith (eds), *Topological Foundations of Cognitive Science*, 1994.

Dubois, D. and Prade, H., Fuzzy sets and probability: Misunderstandings, bridges and gaps. Proceedings of the Second {IEEE} Conference on Fuzzy Systems, 1059-1068, 1993. <http://citeseer.nj.nec.com/dubois93fuzzy.html>

Duckham, M., Mason, K., Stell, J. and Worboys, M.F., A formal approach to imperfection in geographic information, *Computers, Environment and Urban Systems*, 25: 89-103, 2001. (A version of this is downloadable from <http://www.spatial.maine.edu/~worboys/downloads.htm>).

Fisher PF, Models of uncertainty in spatial data, in Longley, Goodchild, Maguire and Rhind (eds.) *Geographic Information Systems*, New York: Wiley, 1999.

Goodchild MF and Proctor J, Scale in a digital geographic world. *Geographical and Environmental Modelling* 1(1): 5-23, 1997.

Halpern, JY, Reasoning about Uncertainty, MIT Press, 2003.

Hunter GJ and Goodchild MF, Dealing with error in spatial databases: A simple case study. *Photogrammetric Engineering and Remote Sensing*, 61(5): 529-537, 1995.

Keefe R and Smith P, *Vagueness: A Reader*, Cambridge MA: MIT Press, 1996.

Komorowski, J., Pawlak, Z., et al., Rough sets: A tutorial. (See downloads for the course).

Makinson, D., How to give it up: A survey of some formal aspects of the logic of theory change. *Synthese* 62: 347-363, 1985.

Motro A and Smets P, *Uncertainty Management in Information Systems: From Needs to Solutions*, Boston: Kluwer, 1997.

Parsons S, Current approaches to handling imperfect information in data and knowledge bases, *IEEE Transactions on Knowledge and Data Engineering*, 8(3): 353-372, 1996.

Pawlak Z, Rough sets, *International Journal of Computer and Information Sciences* 11: 341-56, 1982.

Shafer G., *A Mathematical Theory of Evidence* . Princeton University Press, New Jersey, 1976.

Varzi, A. Vagueness in geography. *Philosophy & Geography*, 4:1 (2001), 49-65.
http://www.columbia.edu/~av72/papers/P&G_2001.pdf

Williamson T, *Vagueness*, London: Routledge, 1994.

Worboys, M.F., Computation with imprecise geospatial data, *Computers, Environment and Urban Systems* 22(2): 85-106, 1998. (A version of this is downloadable from <http://www.spatial.maine.edu/~worboys/downloads.htm>).

Worboys, M.F., Imprecision in finite resolution spatial data, *Geoinformatica* 2(3): 257-280, 1998. (A version of this is downloadable from <http://www.spatial.maine.edu/~worboys/downloads.htm>).

Worboys, M. F., Nearness relations in environmental space, *International Journal of Geographical Information Systems*, 2001.

Zadeh LA, Fuzzy sets. *Information and Control* 8: 338-353, 1965.

Zadeh LA, Fuzzy logic. *IEEE Computer* 21: 83-93, 1988.

Zadeh, L. Toward a theory of fuzzy information granulation and its centrality in human reasoning and fuzzy logic. *Fuzzy Sets and Systems* 90: 111-127, 1997.