Petr Hájek and Fuzzy Logic in this Country

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Petr Hájek's books

- P. Vopěnka, P. Hájek: *The Theory of Semisets*. Academia Praha/North Holland Publishing Company, 1972.
- P. Hájek, T. Havránek: *Mechanizing Hypothesis Formation: Mathematical Foundations of a General Theory*. Springer, Berlin, 1978.
- P. Hájek, T. Havránek, M. Chytil: Metoda GUHA: Automatická tvorba hypotéz, Academia, Praha, 1983. (in Czech).
- P. Hájek, T. Havránek, R. Jiroušek: *Uncertain Information Processing in Expert Systems*. CRC Press, Boca Raton, 1992.
- P. Hájek, P. Pudlák. *Metamathematics of First-Order Arithmetic*. Springer Verlag, 1993.
- P. Hájek: *Metamathematics of Fuzzy Logic*. Kluwer, Dordrecht, 1998.
- P. Cintula, P. Hájek, C. Noguera (eds.): *Handbook of Mathematical Fuzzy Logic*. College Publications, London, 2011.

Some early works on fuzzy theories

Aleš Pultr: Fuzzy mappings and fuzzy sets. Commentationes Mathematicae Universitatis Carolinae 17, 1976.

Jan Pavelka: On Fuzzy Logic I–III. Zeitschrift für Mathematische Logik und Grundlagen der Mathematik 25, 1979.

Vilém Novák: On the syntactico-semantical completeness of first-order fuzzy logic I, II. Kybernetika 26, 1990.

Vilém Novák: Fuzzy množiny a jejich aplikace. SNTL Praha, 1986.

Gaisi Takeuti, Satoko Titani: Fuzzy logic and fuzzy set theory. Archive for Mathematical Logic 32, 1992.

A path towards fuzzy logic

Petr Hájek, Dagmar Harmancová: A comparative fuzzy modal logic. Fuzzy Logic in Artificial Intelligence '93, Springer, 1993.

David Harmanec, Petr Hájek: A qualitative belief logic. International Journal of Uncertainty, Fuzziness and Knowledge Based Systems 2, 1994.

Petr Hájek: Fuzzy Logic as Logic. Mathematical Models of Handling Partial Knowledge in Artificial Intelligence. Plenum Press, 1995.

Petr Hájek, Dagmar Harmancová, Rineke Verbrugge: A qualitative fuzzy possibilistic logic. International Journal of Approximate Reasoning 12, 1995.

Petr Hájek, Lluís Godo, Francesc Esteva: Fuzzy Logic and Probability. Uncertainty in Artificial Intelligence. Morgan Kaufmann, 1996.

Lluís Godo, Petr Hájek: On deduction in Zadeh's fuzzy logic. Proc. IPMU 1996.

Petr Hájek, Lluís Godo, Francesc Esteva: A complete many-valued logic with product conjunction. Archive for Mathematical Logic 35, 1996.

Petr Hájek: Basic Fuzzy Logic and BL-algebras. Soft Computing 2, 1998.

Petr Hájek: Metamathematics of Fuzzy Logic. Kluwer 1998.

"Hájek's group"

Petr Hájek: Ten questions and one problem on fuzzy logic. Annals of Pure and Applied Logic 96, 1999.

Petr Hájek, Zuzana Haniková: A development of set theory in fuzzy logic. Beyond Two: Theory and Applications of Multiple-Valued Logics. Physica Verlag, 2003.

Libor Běhounek, Petr Cintula: Fuzzy class theory. Fuzzy Sets and Systems 154, 2005.

Petr Cintula: Weakly Implicative (Fuzzy) Logics I: Basic Properties. Archive for Mathematical Logic. 45, 2006.

Petr Cintula, Petr Hájek, Rostislav Horčík: Formal systems of fuzzy logic and their fragments. Annals of Pure and Applied Logic 150, 2007.

Karel Chvalovský: On the independence of axioms in BL and MTL. Fuzzy Sets and Systems 197, 2012.

Marta Blková, Rostislav Horčík, Jiří Velebil: Distributive Substructural Logics as Coalgebraic Logics over Posets. Advances in Modal Logic 2012.

Conferences and seminars

SOFSEM (Software Seminar) held annually since 1974.

MFCS (Mathematical Foundations of Computer Science) held annually since 1972.

Seminar on applied mathematical logic. Held weekly since 1967.

IFSA 1997 in Prague.

Logic Colloquium 1998 in Prague.

EUSFLAT 2007 in Ostrava.

Logic, Algebra and Truth Degrees 2010 in Prague.

Community service and honors

- 1992 to 2000 director of the Institute of Computer Science, AS CR.
- long-time member of the Union of Czech Mathematicians and Physicists.
- since 1996 member of the Learned Society of the Czech Republic.
- 1993 to 2005 member of the Scientific Council of the Academy of Sciences of the Czech Republic.

- Bolzano medal from the Academy of Sciences in 2000.
- medal of the Minister of Education of the Czech Republic in 2002.
- *De scientiae et humanitate optime meritis* medal from the Academy of Sciences in 2006.
- Medal of Merit from the President of the Czech Republic in 2006.
- Josef Hlávka medal in 2009.

Petr Hájek, "Fuzzy Logic", The Stanford Encyclopedia of Philosophy.
http://plato.stanford.edu/archives/fall2010/entries/logic-fuzzy/

About Petr Hájek

Wikipedia . . .

Petr Cintula, Zuzana Haniková, Vítězslav Švejdar: Witnessed Years. Essays in Honour of Petr Hájek, College Publications, 2010.

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