

Hájek, Petr

On the metamathematics of fuzzy logic. (English) [Zbl 1007.03022](#)

Novák, Vilém (ed.) et al., Discovering the world with fuzzy logic. Heidelberg: Physica-Verlag. Stud. Fuzziness Soft Comput. 57, 155-174 (2000).

This is an invitation to the author's book: Metamathematics of fuzzy logic [Dordrecht: Kluwer Academic Publishers, Trends in Logic, Studia Logica Library. 4 (1998; [Zbl 0937.03030](#))]. The author first considers propositional calculi, as given by continuous generalized conjunctions over the unit real interval (t-norms), and their residuals. Hajek's basic logic is the logic of all such conjunction connectives. The final sections are devoted to basic predicate logic, and to a list of topics not covered by the present survey. For proofs the interested reader is referred to the above book.

For the entire collection see [[Zbl 0979.00015](#)].

Reviewer: [Daniele Mundici \(Milano\)](#)

MSC:

[03B52](#) Fuzzy logic; logic of vagueness
[06D35](#) MV-algebras
[03B50](#) Many-valued logic

Cited in **1** Review
Cited in **13** Documents

Keywords:

[metamathematics of fuzzy logic](#); [many-valued logic](#); [MV-algebra](#); [basic logic](#); [survey](#); [t-norm](#)