

Dubois, Didier; Prade, Henri**New results about properties and semantics of fuzzy set-theoretic operators.** (English)[Zbl 0593.04004](#)

Fuzzy sets. Theory and applications to policy analysis and information systems, Proc. Symp., Durham/N.C. 1980, 59-75 (1980).

Summary: [For the entire collection see [Zbl 0588.00003](#).]

This communication is a first step towards a general approach to fuzzy set-theoretic operators, i.e. algebraic operators which coincide with set-operators when membership values are crisp. Some properties of subclasses of such fuzzy set-theoretic operators are investigated. Specific examples are given. An attempt to discuss a possible interpretation of these operators is proposed. The choice of a good operator in a given practical situation can be crucial in decision analysis, information retrieval, pattern recognition for the purpose of aggregating several pieces of information.

MSC:

- [03E20](#) Other classical set theory (including functions, relations, and set algebra)
- [03E72](#) Theory of fuzzy sets, etc.
- [03B52](#) Fuzzy logic; logic of vagueness
- [91B06](#) Decision theory
- [68P20](#) Information storage and retrieval of data
- [68T10](#) Pattern recognition, speech recognition

Cited in **9** Documents**Keywords:**

algebraic operators; set-operators