

Dubois, Didier; Kerre, Etienne; Mesiar, Radko; Prade, Henri

Fuzzy interval analysis. (English) [Zbl 0988.26020](#)

Dubois, Didier (ed.) et al., Fundamentals of fuzzy sets. Foreword by Lotfi A. Zadeh. Dordrecht: Kluwer Academic Publishers. Handb. Fuzzy Sets Ser. 7, 483-581 (2000).

A fuzzy quantity is any normal fuzzy subset of the real line and it can be represented either by its membership function or by its level-cuts. The calculus of fuzzy quantities comes from the insertion of the concept of fuzzy set into the area of interval analysis. This chapter is a survey of the present state of the art about fuzzy interval analysis and it extends and updates previous surveys in a very precise and well-written way. It is a good resource material for anyone who works in or desires to work with fuzzy interval analysis. Additionally, the authors indicate some applications to fuzzy statistics, computer sciences, systems engineering, decision analysis, operation research, and engineering design.

For the entire collection see [\[Zbl 0942.00007\]](#).

Reviewer: [Juan J.Nieto \(Santiago de Compostela\)](#)

MSC:

[26E50](#) Fuzzy real analysis

Cited in **84** Documents

Keywords:

[fuzzy quantity](#); [fuzzy interval analysis](#)