Peng, Jiayin

The measure of intuitionistic fuzzy filters on BL-algebras.  (Chinese. English summary)  

Summary: The concept of the measure of intuitionistic fuzzy filters on BL-algebra is proposed, and its equivalent characterizations are given. This paper discusses the degree to which intuitionistic fuzzy subset on BL-algebras is intuitionistic fuzzy filter by using measure of intuitionistic fuzzy filters. For an intuitionistic fuzzy set of BL-algebras, the relationship between the filter constructed by its (strong) cut set and the measure of its intuitionistic fuzzy filter is established. This paper discusses the measures of intuitionistic fuzzy filters for the intersection and the direct product of intuitionistic fuzzy subsets. Meanwhile, the measures of intuitionistic fuzzy filters about the homomorphism image and inverse image of the intuitionistic on BL-algebras are discussed.

MSC:
03B52  Fuzzy logic; logic of vagueness
03G25  Other algebras related to logic

Keywords:
BL-algebra; intuitionistic implication; intuitionistic fuzzy filter; intuitionistic fuzzy filter degree

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