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ON A NEW METHOD TO MEASURE THE KNOWLEDGE AMOUNT OF FUZZY SET

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ABSTRACT:

In this paper, we introduce a novel measure to compute the knowledge amount in a fuzzy set. We investigate a fuzzy knowledge measure as a dual of fuzzy entropy and show the superiority of the proposed fuzzy knowledge measure over some of the existing entropy measures through comparative study. We also demonstrate the application of the proposed fuzzy knowledge measure in multi-attribute decision-making (MADM).

Keywords: Fuzzy set, Fuzzy entropy, Fuzzy knowledge measure, MADM