

عنوان مقاله:

MULTI-ATTRIBUTE DECISION MAKING METHOD BASED ON BONFERRONI MEAN OPERATOR and possibility degree OF INTERVAL TYPE- γ TRAPEZOIDAL FUZZY SETS

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خلاصه مقاله:

This paper proposes a new approach based on Bonferroni mean operator and possibility degree to solve fuzzy multi-attribute decision making (FMADM) problems in which the attribute value takes the form of interval type- γ fuzzy numbers. We introduce the concepts of interval possibility mean value and present a new method for calculating the possibility degree of two interval trapezoidal type- γ fuzzy sets (IT γ TrFSs). Then, we develop two aggregation techniques, which are called the interval type- γ trapezoidal fuzzy Bonferroni mean (IT γ TFBM) operator and the interval type- γ trapezoidal fuzzy weighted Bonferroni mean (IT γ TFWBM) operator. We study their properties and discuss their special cases. Based on the IT γ TFWBM operator and the possibility degree, a new method of multi-attribute decision making with interval type- γ trapezoidal fuzzy information is proposed. Finally, an illustrative example is given to verify the developed approaches and to demonstrate their practicality and effectiveness.

کلمات کلیدی:

Multi-attributes group decision making, Interval type- γ fuzzy sets, Bonferroni mean operator, IT γ TFWBM operator

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