

Editorial

Ranking Fuzzy Numbers and Its Extensions

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Ranking fuzzy numbers plays a prominent role in management, engineering, and basic sciences. Fuzzy numbers are represented by a membership function, and despite the real numbers that can be linearly ordered, fuzzy numbers might overlap with each other; thus, their ordering seems impossible or very difficult. Varieties of methods have been proposed for ranking fuzzy numbers in the recent years. Due to nonintuitive and nondiscriminating results of these methods that cause inconsistency in outputs, generalization of them is limited and there are some extenuations associated with them. Some of the ranking methods use defuzzification methods, while others are based on the membership function or metric distance methods. This issue's papers study the following areas.

- (i) Similarity: it is being used in the approximation theory.
- (ii) Ordering: it is used for ordering fuzzy numbers and quantities.
- (iii) Risk analysis: it is used in management science.
- (iv) Optimization: it is applied in management and applied science.

- (v) Fuzzy differential equation: the nonequality case in this equations can be ordered.
- (vi) Fuzzy clustering: it is used in intelligent systems.

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