

Lambda-Levelwise Statistical Convergence of a Sequence of Fuzzy Numbers

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Abstract : Lately, many mathematicians have been studied the statistical convergence of a sequence of fuzzy numbers. We know that Lambda-statistically convergence is a kind of convergence between ordinary convergence and statistical convergence. In this paper, we will introduce the new kind of convergence such as λ -levelwise statistical convergence. Then, we will define the concept of the λ -levelwise statistical cluster and limit points of a sequence of fuzzy numbers. Also, we will discuss the relations between the sets of λ -levelwise statistical cluster points and λ -levelwise statistical limit points of sequences of fuzzy numbers. This work has been extended in this paper, where some relations have been considered such that when lambda-statistical limit inferior and lambda-statistical limit superior for lambda-statistically convergent sequences of fuzzy numbers are equal. Furthermore, lambda-statistical boundedness condition for different sequences of fuzzy numbers has been studied.

Keywords : fuzzy number, λ -levelwise statistical cluster points, λ -levelwise statistical convergence, λ -levelwise statistical limit points, λ -statistical cluster points, λ -statistical convergence, λ -statistical limit points

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020