

A Characterization Theorem for Levelwise Statistical Convergence of a Sequence of Fuzzy Numbers

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Abstract

In the present study, we prove a characterization theorem which gives a necessary and sufficient condition for a sequence of fuzzy numbers to be levelwise statistically convergent in the space of fuzzy numbers. As an application of this theorem we utilize the idea of statistical equi-continuity in order to obtain a condition which guarantees the set of levelwise statistical cluster points of a statistically bounded sequence to be nonempty and a levelwise statistically Cauchy sequence to be levelwise statistically convergent.

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