

Degenerate Correlation and Information Energy of Interval-Valued Fuzzy Numbers

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Abstract

This paper considers the degenerate cases of the correlation and information energy in the interval-valued fuzzy numbers, proposed by Wang and Li [8]. Later, Hong [5] provided four counterexamples to the necessity parts of the theorems in Wang and Li [8] concerning the degenerate cases of correlation and information energy. In this paper, we generalize the counterexamples and present the corresponding revised theorems to make them more general, especially for the necessity parts of the theorems in Wang and Li [8] for the degenerate cases of correlation and information energy.

Keywords: Interval-Valued Fuzzy Set, Interval-Valued Fuzzy Number, Correlation Coefficient, Information Energy.