

LINEAR VOLTERRA FUZZY INTEGRAL EQUATIONS SOLVED BY MODIFIED TRAPEZOIDAL METHOD

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ABSTRACT

In this paper, the numerical solutions of linear Volterra fuzzy integral equations of the second kind (VFIEs-2) have been investigated using modified trapezoidal method. First, this equation was transformed into a system of crisp one and then applying the modified trapezoidal method on the resulting system to transform it into an algebraic system which is solved to obtain the solution. Two numerical examples are given to show the efficiency of the method.

KEYWORDS: Volterra Fuzzy Integral Equations, Fuzzy Numbers, Fuzzy Functions, Modified Trapezoidal Method