# SOLVING FULLY FUZZY LINEAR SYSTEMS OF EQUATIONS BY USE OF THE GENERALIZED INVERSE

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## Abstract

The concept of fuzzy numbers and fuzzy arithmetic operations were first introduced by Zadeh [6], Dubois and Prade [4]. One of the major applications of fuzzy number arithmetic is treating fuzzy linear systems and fully fuzzy linear systems. Linear systems have important applications to many branches of science and engineering. In many applications, some of the parameters of the system are fuzzy numbers. So it is immensely important to develop numerical procedures that would appropriately treat general fuzzy linear systems and solve them. In this paper, we solving fully fuzzy linear systems of equations (FFLS) $\tilde{A}\tilde{X} = \tilde{Y}$ by use of the Generalized inverse. The coefficient matrix $\tilde{A}$ is a $m \times n$ matrix $(m < n)$, with elements of LR type fuzzy numbers. We will illustrate our method by solving a numerical example.

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