NONLINEAR CONTRACTION AND FUZZY COMPACT OPERATOR IN FUZZY BANACH ALGEBRAS

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Abstract. In this paper, at first, we consider the concept of fuzzy Banach algebras and fuzzy compact operators. Then we apply a fixed point theorem to solve the operator equation $Ax Bx = x$ in the fuzzy Banach algebras under a nonlinear contraction.

Key Words and Phrases: Banach algebra, fuzzy Banach space, nonlinear contraction, compact operator, completely continuous operator, Schauder fixed point theorem.

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REFERENCES


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