

FUZZY MEASURE AND FUZZY INTEGRAL

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The main purpose of this thesis is to study measures and integrals in conjunction with the concept of fuzzyness.

After presenting a brief survey of the development of the theory of fuzzy measures and fuzzy integrals, we establish a relationship between T -fuzzy measure and fuzzy-valued T -fuzzy measure. Furthermore, as a modification of Sugeno's fuzzy integral with respect to a fuzzy measure, we define a T -fuzzy integral with respect to a T -fuzzy measure and show that the monotone convergence theorem and Fatou's lemma hold for this T -fuzzy integral.

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