

# Aggregation of sequence of fuzzy measures

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## Abstract

In this paper we present construction of new fuzzy measures by applying extended aggregation function on a sequence of fuzzy measures. According to properties of applied aggregation function and properties of initial fuzzy measures, some properties of constructed fuzzy measure are proved. Additionally, one new extended aggregation function named extended weighted arithmetic mean of distorted arguments is introduced, and its relevant properties are proved. It is shown that this extended aggregation function, with appropriated parameters, can be suitable for construction of new fuzzy measures. Other types of non-additive measures can be constructed in the same way, by applying aggregation function on the initial sequence of non-additive measures.

**Keywords:** Fuzzy measure, Non-additive measure, Aggregation function

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