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Single value simulation of fuzzy variable. (English) Zbl 0633.65144
Fuzzy Sets Syst. 25, No. 1, 43-57 (1988).

Let V be a fuzzy variable with possibility distribution μ_G . The authors suggest the following procedure for generating a single value of the fuzzy variable V :

Step 1. Generate a value t of the uniform variable T over $(0,1]$. Step 2. Generate a value x of the uniform variable U over the t -level set $G_t := \{x | \mu_G(x) \geq t\}$ of the fuzzy set G .

Viewing x as a single value of the fuzzy variable V , like this, an approach to the so-called fuzzy-numerical simulation is presented. We may be interested in this paper on the relation between random sets and fuzzy ones.

Reviewer: [Wang Peizhuang](#)

MSC:

- [65C99](#) Probabilistic methods, stochastic differential equations
- [65C20](#) Probabilistic models, generic numerical methods in probability and statistics
- [60D05](#) Geometric probability and stochastic geometry
- [03E72](#) Theory of fuzzy sets, etc.
- [54D05](#) Connected and locally connected spaces (general aspects)

Cited in **36** Documents

Keywords:

[possibility measure](#); [probability measure](#); [fuzzy set](#); [fuzzy variable](#); [possibility distribution](#); [fuzzy-numerical simulation](#); [random sets](#)

Full Text: [DOI](#)

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