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Independence and conditional possibility for strictly monotone triangular norms. (English)

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Summary: In the literature there are different definitions of conditional possibility. Starting from a general axiomatic definition, we propose a definition of independence for \odot -conditional possibility, in the case that \odot is a strictly monotone triangular norm. We study its main properties to compare it to other definitions introduced in possibility theory. Then, we show that the controversial aspects related to logical dependencies (structural zeros) can be circumvented. Moreover, a set of properties (the well-known graphoid properties) has been considered to be tested, allowing us to compare the proposed definition to the independence notions given in the context of other uncertainty formalisms.

MSC:

60A99 Foundations of probability theory

Cited in 19 Documents

Full Text: DOI

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