Some Properties of B-Operations

Bohdan Butkiewicz

Abstract: In the paper the problem of mathematical properties of B-operations and weak WB-operations introduced by the author for interpretation of connectives "and", "or", and "also" in fuzzy rules is considered. In previous author's papers some interesting properties of fuzzy systems with these operations were shown. These operations are weaker than triangular norms used commonly for a fuzzy system described by set of rules of the type if–then. Monotonicity condition, required for triangular norms, is replaced by condition of positivity (negativity), i.e. operations must be only positively (negatively) defined. Weak B-operations may not fulfill associativity condition.

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