TRIANGULAR SUBNORMS

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General ordinal sums of semigroups [1] yielding a t-norm require as summands t-subnorms [2,3,5]. Recall that a mapping $S : [0,1]^2 \to [0,1]$ is called a triangular subnorm (t-subnorm is short) whenever it is associative, commutative, non-decreasing and bounded by minimum, i.e., $S(x,y) \leq min(x,y)$ for all $(x,y) \in [0,1]^2$. The structure of continuous t-subnorms is similar to the structure of continuous t-norms [4,6], with an important role of continuous Archimedean t-subnorms. Characterization of continuous multiplicative generators yielding continuous Archimedean t-subnorms [7] allows to construct several interesting examples with properties very different than those of continuous Archimedean t-norms. There are still several open problems here, which will be discussed in conclusions.

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