

## Brief Note on Distributivity of Triangular Fuzzy Numbers

Milan Mareš

*Abstract:* The general results summarized in [1] and [3] show that fuzzy quantities and more especially fuzzy numbers do not fully preserve some of the classical algebraic properties of addition. The most significant ones are the group property of the opposite elements and one of the distributivity laws. It is shown in [3] that the concept and properties of the opposite element can be easily formulated if we substitute the crisp equality between fuzzy quantities by a weaker type of relation. It is also shown in [3] that this method does not influence the problem of distributivity, except a very special sort of fuzzy quantities, as shown in [4]. Here we prove that for the triangular fuzzy numbers and for trapezoidal fuzzy intervals the procedure based on the weaker relation leads to the validity of the distributivity.

*Keywords:*

*AMS Subject Classification:*