

Uncertain Information and Canonically Conjugate Fuzzy Subsets

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In the modern world we mostly deal with two type uncertainty based on vagueness and ambiguity accordingly. Modeling situation with first type uncertainty mostly based on Fuzzy sets and degree of fuzziness. Major inconvenience with fuzzy modeling is based on expert estimations, we'll need additional criteria to choose "right" expert, with "right" estimations.

For the given various information exists opposition between inaccuracy of expression content and its uncertainty: with the increase of expression accuracy, its uncertainty rises as well and vice-versa, uncertain character of information leads to some inaccuracy of the final conclusions, received from this information.

When there is not enough information on property we'd like to model, we are offering to find canonically conjugate one that would be easier to describe and is completing the information about object. We will construct model that would be "mean"-ed: based on expert estimation, canonically conjugate property and optimality condition.