

## Re: how to combine two fuzzy numbers

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Hi,

Prof. Lofti Zadeh developed the "extension principle" to do fuzzy arithmetic. On my homepage you can find an explanation of this principle and a "fuzzy calculator" that I designed in JavaScript to show how the principle works. If you are interested, Bojadziev and Bojadziev (Advances in Fuzzy Systems – Applications and Theory Vol.5) developed another method to do fuzzy arithmetic. I prefer the method of Zadeh.

I realize that this is not a complete answer to your question, but fuzzy arithmetic is an important basic thing to be able to work with.

In probabilistics you have to be able to compute things like:  $P(A)*P(B)$ .

So you can imagine that you want to be able to compute:  $P(\text{fuzzy}A)*P(\text{fuzzy}B)$ .

In the menu you will see the link to Fuzzy Calculator.

Hopes this helps and best regards.

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> Suppose I have 2 fuzzy estimates, x and y. For instance, one can imagine they

> are independent predictions of rain by two different forecasters. Suppose I want to

> combine x and y into a "combined" estimate z. What is the formula that optimally

> relates z to x and y?

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> Know any articles about how to make optimal fuzzy combinations?

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> p.s. I'm a novice, so am only interested in very simple introductory articles.