

Workshop on the Theory of Belief Functions

April 1-2, 2010

Brest, France

Invited speaker

April 2, 2010

14h00

A betting interpretation for probabilities and Dempster-Shafer degrees of belief

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Abstract: There are at least two ways to interpret numerical degrees of belief in terms of betting: (1) you can offer to bet at the odds defined by the degrees of belief, or (2) you can judge that a strategy for taking advantage of such betting offers will not multiply the capital it risks by a large factor. Both interpretations can be applied to ordinary additive probabilities and used to justify updating by conditioning. Only the second can be applied to Dempster-Shafer degrees of belief and used to justify Dempster's rule of combination.

