Dawid, A. P.; DeGroot, M. H.; Mortera, J.
Coherent combination of experts’ opinions. (With discussion).
(English) Zbl 0844.62002

Summary: An expert (for You) is here defined as someone who shares Your world-view, but knows more than You do, so that were She to reveal Her current opinion to You, You would adopt it as Your own. When You have access to different experts, with differing information, You require a combination formula to aggregate their various opinions. A number of formulae have been suggested, but here we explore the fundamental requirement of coherence to relate such a formula to Your joint distribution for the experts’ opinions. In particular, in the context of opinions about an uncertain event $A$, we investigate coherence properties of the linear, harmonic and logarithmic opinion pools. Some general results on coherence of the joint forecast distribution are also developed.

MSC:
62A01 Foundations and philosophical topics in statistics
62C99 Statistical decision theory

Keywords:
compatibility; combining opinions; linear opinion pool; harmonic opinion pool; coherence; experts’ opinions; logarithmic opinion pools; joint forecast distribution

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References:

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