

sive evidence shows that x's are safe." This is especially the case given no statement of quantity, density, individuals, circumstances, and so forth.

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Combining Expert Opinions

Readers of the article "A new way to ask the experts: Rating radioactive waste risks" by Richard A. Kerr (News & Comment, 8 Nov., p. 913) may be left with the impression that the elicitation and mathematical combination of expert opinion is a technique invented by earth scientists. In fact, this method has been in use for several decades. Notable applications of the formal elicitation of probabilities from experts in the 1970s include the Rasmussen report on nuclear reactor safety (1), the National Academy of Sciences study of the depletion of stratospheric ozone (2), and the National Defense University study of global warming (3).

Furthermore, there is a substantial body of social science literature on the elicitation and combination of expert judgment. Two conclusions can be drawn from experience and psychological research on elicitation of probability judgments: (i) if done properly and with care, it can be a valuable tool for quantifying uncertainty, and (ii) the apparent simplicity of the technique hides methodological pitfalls that can lead to misleading results. Alternative question-framing and response modes are just two examples of the types of methodological choices that can influence the elicited probabilities. Just as in earth sciences or biomedical research, appropriate background and training are necessary for researchers who conduct expert judgment studies.

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2. U.S. National Academy of Sciences, *Environmental Impact of Stratospheric Flight: Biological and Climate Effects of Aircraft Emissions in the Stratosphere* (National Research Council, Washington, DC, 1975).
3. *Climate Change to the Year 2000* (National Defense University, Washington, DC, 1978).



Estonian Physicist: Active and Productive

Richard Stone's article "Estonian researchers lead the way in science reform" (News & Comment, 4 Oct., p. 29) gives a realistic picture of recent developments in science administration in Estonia. We are encouraged to continue in this direction.

However, the article represents Karl Rebane, the former president (1973–1990) of the Estonian Academy of Sciences (EAS) and member of the Russian (formerly Soviet) Academy of Sciences, a physicist of international renown, as merely an aged enemy of Estonian scientific reform. This is definitely not true.

Rebane's contribution to physics as well

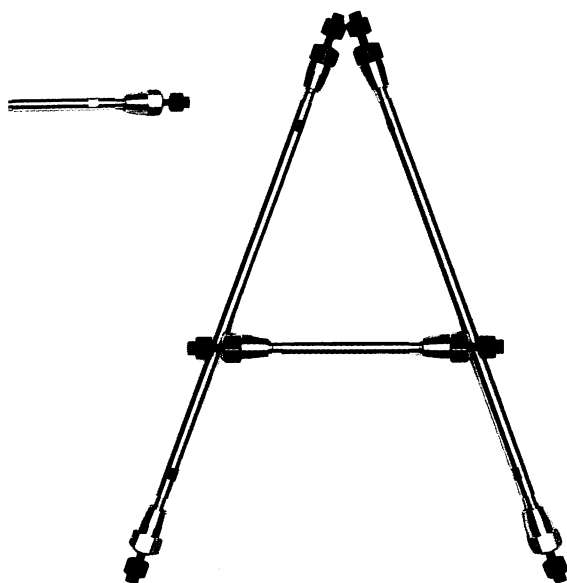
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