

and people interested to this aspect of MCDM can find a good survey of ideas, solutions and applications.

There is a part dedicated to negotiations support with some interesting papers (see Iglewski and Michalowski and the general paper by Zionts) but does not give justice to the richness of the subject. Perhaps this was impossible.

There are, however, two papers for which libraries and specialists should buy the book.

The first one is the paper of Bana e Costa on the 'outweigh approach'. The problem is how to compare alternatives on multiple criteria when very poor information about the relative importance of the criteria is available. For instance, when only a partial order of the criteria is available or information of the kind: the weight of criterion c_1 is between 0.5 and 0.3 and of criterion c_2 between 0.3 and 0.2.

The author introduces the concept of restricted dominance in the space of weights and when this relation does not hold a 'fuzzy outweigh relation' is used to exploit deeper the information contained in a feasible set of weights.

The subject, even if very briefly represented, allows an integration of multi-attribute utility theory and outranking concepts with very promising possibilities.

The second paper is by Massaglia and Ostanello: '*N*-tomic: a support system for multi-criteria segmentation problems'. To my knowledge there exist very few papers in the literature that face the problem of segmentation of a set of actions on the basis of established profiles of 'good' or 'bad', actions. This paper is a very interesting proposal on the subject. Moreover the paper introduces two more innovations:

- (i) the possibility to use 'evolutive' profiles as the set of actions may change, or as other information becomes available;
- (ii) the introduction in an operational way of the concept of 'logic' or, as I interpret it, of 'decision behaviour'; that is, a global attitude towards the set of actions (pro-acceptance, pro-rejection etc).

ALEXIS TSOUKIAS

Probability Metrics and the Stability of Stochastic Models

SVETLOZAR T. RACHEV

John Wiley and Sons, Chichester, 1991. 494 pp. £55.00

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According to the flyleaf, this very demanding theoretical text is 'likely to be of use to graduate students, researchers and practitioners in applied probability and operations research.' The book is, in fact, much more suited to the specialist in mathematical statistics. Its title is likely to mislead however: Rachev is not so much concerned with the stability of statistical models as that of limiting processes.

The book is broken into four parts: part one provides an introduction to the theory of probability metrics, part two, an examination of relationships between selected metric/distance measures and part three, 'applications' (to, for example, G/G/1 queueing systems). Part four covers so-called 'ideal' metrics.

Unless you are one of the initiated, I am afraid the volume is virtually unreadable. A familiarity with Feller's¹ work, you might think, would support the hapless reader but it does not. The seven page Index of Symbols and Abbreviations at the end of the book confirms the near-impossibility of the task. (You need to refer to this even to get through the Preface—the most technical I have ever encountered.)

There is evidently a market for a well-packaged reference exercise such as this. However it is unlikely to appeal to other than the very esoteric researcher.

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REFERENCE

1. W. FELLER (1971) *An Introduction to Probability Theory and its Applications, Vol. 2. 2nd edition*, Wiley, New York.