

Since further books on fuzzy set theory are unavoidable, we may at least ask them to show a greater sensitivity to the relevant diverse sources of literature, and provide a comparative analysis which shows when and where the language of fuzzy set theory helps, and where it only adds fuzziness to the theory without in any way smoothing the original problem.

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Etude géométrique des espaces vectoriels, une introduction, by Jacques Bair and René Fourneau, Lecture Notes in Mathematics, no. 489, Springer-Verlag, Berlin, Heidelberg, New York, 1975, vii + 184 pp., \$8.20.

In the axiomatic study of linear topological spaces over the real field, which flourished forty to twenty years ago, it soon became clear that the absolutely minimal requirement for a topology in a linear space L is that each line in L carry a copy of much of the structure of R . This finds expression in two aspects of segments, first, that each open segment in R is a neighborhood of all its points—an aspect that can usefully be generalized to linear spaces over all topological fields, and, second, that the two endpoints of each segment are accessible from the interior of the segment—an aspect which generalizes to linear spaces over ordered fields. These two attitudes lead to analogues of interior of a set in L and of derived set of a set in L .

The first attitude leads to a definition: x is called a core point of a subset A of L if for each line l through x the subset $l \cap A$ contains an open interval (in l) which contains x . Two topologies in L are suggested: For T , the neighborhoods of x are all the subsets of L which have x as a core point; for T_n , the neighborhoods of x are all the convex subsets of L which have x as a core point. T is not badly related to the linear operations in L ; translation by an