

named by the author in the introduction, has performed a very creditable task in typing up the original manuscript. Inevitably, however, there are some bizarre results (some due to the author's insistence on exponential  $e$  instead of  $\exp$  [...]); see for example pages 71; the bottom line on page 105; the matrix formulae on page 256.

Clearly such production methods make for economies in one direction; the cost of setting the book in mathematical type is avoided. However it also makes for additional costs in another way; it is a reasonable estimate that this particular book of 700 pages could have been produced in 500 pages, or less, with the traditional form of mathematical printing. It would be interesting to have a comparison made of the production costs of this book under review and a similar book produced in the more traditional form.

However, let not these comments detract from the book itself. The author has produced an important text which will be helpful to both pure and applied mathematicians.

W. N. EVERITT

YAU-CHUEN WONG and KUNG-FU NG, *Partially Ordered Topological Vector Spaces* (Clarendon Press, Oxford, 1973), ix + 217 pp.

The initial problem facing the writer of a book on this subject is what to do about linear lattices, alias Riesz spaces. These have a distinctive theory of their own, occupying a position within the general theory that might be compared to that of Hilbert spaces within Banach space theory. The authors' choice (in the reviewer's opinion, a good one) is to deal with them separately, devoting roughly the first half of the book to the general theory and the second half to linear lattices. Each half is divided, unequally, into nine chapters, starting with one on the purely algebraic structure.

The general theory has now reached a relatively satisfactory state, with duality playing a central part, and this account is both timely and welcome. A good deal of it has appeared in earlier books, but two notable recent developments (for which the authors have been largely responsible) are included, namely (i) the theory of locally solid spaces, now seen not to require a lattice ordering, and (ii) the completed duality theory of base norms and approximate order-unit norms.

The theory of linear lattices is much harder to collect into a manageable form, and the authors' choice of material is necessarily rather personal. To start with, the possibilities of a purely order-theoretic development, without topology, are immensely greater. This has been treated in detail by Luxemburg and Zaanen, and the present authors, in accordance with their title, do not explore far in this direction. Instead, they concentrate on (i) theorems relating order-completeness and topological completeness, and (ii) duality theory, finishing with four short chapters outlining their own work on order-infrabarrelled spaces.

The reviewer was surprised to find no mention of extremal structure, with its applications to lattice homomorphisms and  $M$ -spaces. Less surprisingly, there is no attempt to describe the theory of positive operators.

The proofs are complete and the style is always clear, though a clear head for notation is required, and there are not many concessions to motivation. A quite elementary knowledge of topological linear spaces will see the reader through most of the book. The attributions in the text, on the authors' own admission, are not systematic or accurate, but are amplified by some notes at the end.

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