BOOK REVIEWS

tinuous bounded functions on a topological Abelian group (a fact provable in other and simpler ways).

Chapter III takes up spaces of continuous linear mappings. The main theorem proved is the Banach-Steinhaus theorem, which appears as a statement about filters on the space $\mathfrak{L}(E, F)$, where E is a "tonneau" space, F is a locally convex space with Hausdorff separation, and $\mathfrak{L}(E, F)$ is all continuous linear mappings of E into F. In this formulation, the classical Banach-Steinhaus theorem and its elegant applications seem far away (although one standard application is given as an example). A host of types of topological vector spaces appear, mostly in exercises. Their utility for the general mathematician seems small.

Chapter IV, entitled *Duality in topological vector spaces*, is in the reviewer's opinion the most useful of all the five chapters. Here is a complete and readable account of the various topologies for the space of continuous linear functionals on a topological vector space.

Chapter V contains a treatment of the elementary theory of Hilbert spaces. Aside from a liberal use of filters, there seems to be little novelty in this chapter. One notes a surprising concession to human weakness—the author has furnished a couple of diagrams to illustrate a well-known theorem on the existence of unique distance-minimizing elements in convex sets.

In an interesting Historical Note, the author traces the history of the subject, from the contributions of D. Bernoulli to those of L. Schwartz. This spirited and at the same time learned account is well worth reading.

The "Fascicule de résultats" is of doubtful value. It would seem difficult to appreciate or use this brief summary without first having studied the main text: and when this has been done, the summary is not needed. A similar comment applies to the folded inserts at the ends of the volume repeating the most important definitions and axioms. A dictionary giving various common terms in English, French, and German is provided, as well as brief lists of special symbols.

To summarize: Plus ça change, plus c'est le même Bourbaki.

EDWIN HEWITT

Die innere Geometrie der konvexen Flächen. By A. D. Alexandrow Berlin, Akademie Verlag, 1955, 38.50 DM.

This is a German translation of the Russian book with the analogous title which appeared in 1948. Except for corrections of misprints and of some minor errors and the translator's simplifications

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