of the author's achievement of having written a useful book which is also pleasurable to read.

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14[2.05].—GÜNTER MEINARDUS, *Approximation of Functions: Theory and Numerical Methods*, translated by Larry L. Schumaker, Springer-Verlag, New York Inc., 1967, viii + 198 pp., 24 cm. Price $13.50.

This is a translation of the German edition which appeared in 1964. It differs in detail from that edition by inclusion of new work on comparison theorems for regular Haar systems and on segment approximation.

H. O. K.

15[2.05].—LEOPOLDO NACHBIN, *Elements of Approximation Theory*, D. Van Nostrand Co., Inc., Princeton, N. J., 1967, xii + 119 pp., 20 cm. Price $2.75.

It is appropriate to begin by pointing out that the subject matter of this book is not *best* approximation; the author is rather concerned with the problem of *arbitrarily good* approximation.

More precisely, the author works within the framework of a given function algebra $C(E)$, consisting of all continuous scalar (real or complex, depending on the circumstances) functions on a completely regular topological space E. Such algebras are given the compact-open topology and the general problem is then to characterize the closure of various subsets S of $C(E)$.

The results given include the following cases: S is a lattice (Kakutani-Stone theorem), an ideal, a subalgebra of $C(E)$ (Stone-Weierstrass), or a convex sublattice (Choquet-Deny). In particular, these results imply criteria for the density of S in $C(E)$.

In addition to these well-known theorems, there is a careful presentation of a general *weighted* approximation problem. This problem is a generalization to the $C(E)$ context of the classical Bernstein problem on R^1 or R^N, and is largely based on recent work by the author. The problem is reduced back to the one-dimensional Bernstein problem and various criteria for its solution are then established, making use of analytic or quasi-analytic functions on R^1.

The book will be accessible to readers with a modest background in analysis (Taylor and Fourier series, Stirling's formula) and general topology (partition of unity, Urysohn's lemma). The necessary functional analysis of locally convex spaces is developed in the early chapters. The Denjoy-Carleman theorem on quasi-analytic functions is the only other major result needed and references for its proof are provided. There is an extensive bibliography, but no index or exercises.

It is clear that numerical analysts will find material on approximation more relevant to their profession in, for example, the books of Cheney or Rice. On the other hand, Nachbin's book provides an interesting blend of hard and soft analysis, and more importantly, it collects together for the first time the main closure