

The first Bulgarian version of the book was published by the Publishing House of the Bulgarian Academy of Sciences, Sofia, in 1983. The present one is the carefully edited English translation together with several improvements. Now each chapter ends with a section on Notes, which not only provides some historical background to the subject, but also updates the material. Indeed, the list of references is considerably enlarged, and Section 2.1 on Whitney's theorem is completely rewritten, including the recent achievements of the senior author concerning the boundedness of Whitney's constants.

This book for the first time introduces into a field of recent progress in approximation theory and numerical analysis. Therefore it certainly will be of great value to those working in the broad area of error analysis. The book is well organized and (almost) self-contained. In fact, the presentation of the material is introductory, proofs are worked out in detail, and the pace is leisurely. Particularly in the applications, the authors do not present the most general results but try to emphasize the underlying principles in connection with significant examples. A list of symbols and an index round out this useful publication. In all, the book nicely surveys a substantial portion of the work of the very active Bulgarian school of approximation.

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Matrix norms and their applications, by G. R. Belitskii and Yu. I. Lyubich. Translated by A. Iacob. Oper. Theory: Adv. Appl., vol. 36, Birkhäuser, Basel, Boston, Berlin, 1988, viii+209 pp., \$87.50. ISBN 0-8176-2220-9

The study of ring norms may be considered to go back to the well-known papers by Murray and von Neumann on rings of operators [4], by Gelfand on commutative Banach algebras [1], and by Gelfand and Naimark on C^* -algebras [2]. In a paper on "the metrization of matric-space" [5], von Neumann investigated the properties of ring norms constructed from gauge functions on \mathbf{R}^n ;