engineering or computer science. As a result, some of the applied parts seem to be comparatively more elementary and discursive than the theoretical ones.

As with any text, there will certainly be some disagreement with the authors' choice of topics. This may not so much pertain to the algebraic material as to the selection of the applications. For instance, the stress on algebraic coding theory may be questioned by some readers with interests in computer science who might want to see further discussions on, for example, the algebraic theory of automata and formal languages instead of some material on certain classes of codes. A more objective criticism might relate to the chapter on ALGOL, which is somewhat weaker than the other chapters in the book. One reason for its inclusion was probably the desire to provide a foundation for the ALGOL algorithms in later chapters and to discuss some basic aspects of formal languages. Surprisingly, ALGOL procedures are never introduced, and later on only the Gaussian elimination algorithm is written in the form of a procedure.

These comments cannot in any way detract from the considerable value of the book as a text for various courses of a new and urgently needed type. In its entirety the material can be taught as a year course on the advanced undergraduate/beginning graduate level, and the preface indicates that at Harvard University it is indeed so taught. It should also be possible to select appropriate topics for meaningful semester courses. Numerous exercises have been included throughout the book which should enhance its value as a text even further.

All in all, this is a significant addition to the mathematics text market, which deserves widespread and very thoughtful attention and, hopefully, will stimulate in many institutions the introduction of courses following its ideas.

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Lebesgue's Theory of Integration by Thomas Hawkins. University of Wisconsin Press, Madison, 1970. xv + 227 pp.

A History of Vector Analysis by Michael J. Crowe. University of Notre Dame Press, Notre Dame, 1967. xvii + 270 pp.

The Development of the Foundations of Mathematical Analysis from Euler to Riemann by I. Grattan-Guinness. MIT Press, Cambridge, 1970. xiii + 186 pp.

Die Genesis des abstrakten Gruppenbegriffes by Hans Wussing. VEB Deutscher Verlag der Wissenschaften, Berlin, 1969. 258 pp.

Most mathematics has been developed since 1800, and most history of mathematics deals with the period before 1800. We can only guess at the