Overall, I feel that the "numerical" part of the book is well-conceived and clearly presented. But I have a basic reservation about the book as a whole: First, I feel it should not make a half-hearted attempt to address mainstream topics as well, least of all sorting and searching, which is discussed in the last third of the book. These problems are surely fundamental, but they have received extensive and thorough treatment already, for example in [1]. Second, I miss a chapter on intractable problems. There are *NP*-complete problems which are purely number-theoretic, for example solving quadratic diophantine equations [2], and it seems natural to include them given the main thrust of the book. In fact, the author prepares the ground for such a section in the introduction by discussing how asymptotic complexity limits practical problem size, and it is unfortunate that this subject is not developed further. In short, I feel that the book would be stronger if the last third on sorting and searching were replaced by a discussion of hard algebraic problems.

At more than forty dollars, the book is not likely to be chosen as the textbook for a specialized course or seminar. This is a pity, since, by its content, it would be a natural choice.

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1. D. KNUTH, *The Art of Computer Programming*, Vol. 3, Addison-Wesley, Reading, Mass., 1973.
2. K. MANDERS & L. ADLEMAN, "*NP*-complete decision problems for binary quadratics," *J. Comput. Systems Sci.*, v. 16, 1978, pp. 168–184.

6[2.05.6]. —LARRY SCHUMAKER, *Spline Functions: Basic Theory*, John Wiley & Sons, Inc., New York, 1981, xiv + 553 pp., $23\frac{1}{2}$ cm. Price $42.50.

This book will serve as an excellent reference on spline functions. It treats both the constructive and approximation-theoretic aspects of splines. The main tools used to describe the approximation properties of splines are the various moduli of smoothness and the K-functional. A certain amount of sophistication is required of the reader, since many results are stated without proof (but with adequate references). It is for this reason that I would urge caution to the person who wants to use this book as an introductory spline text.

Although univariate polynomial splines dominate nearly the first three-fourths of the book, there is one chapter each on Tchebycheffian Splines, L-Splines, Generalized Splines, and Tensor-Product Splines. In conclusion, I have no doubt that this well-written book will be appreciated not only by the experts in the field of spline approximation, but also by those serious students who wish to learn about splines.

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