

the literature which is confined to "Bibliographic Notes" (pp. 347–350) is too brief for a book of this length on a subject with such a rich history. Apart from these points, I enjoyed reading the book. I would recommend the book for any library which already includes [1] and [2] because the work of Stepanets continues the traditions of these classic works and it is easier to read.

## REFERENCES

1. N. P. Korneichuk, "Exact Constants in Approximation Theory," Cambridge Univ. Press, Cambridge, 1991.
2. A. F. Timan, "Theory of Approximation of Functions of a Real Variable," Dover, New York, 1994.

TERRY M. MILLS

E-mail: mills@redgum.ucnv.edu.au

*Proceedings*

R. V. M. Zahar, Ed., *Approximation and Computation: A Festschrift in Honor of Walter Gautschi*, International Series of Numerical Mathematics, **119**, Birkhauser, Boston, 1994, xlvii + 593 pp.

The 65th birthday of Walter Gautschi provided an opportune moment for an international symposium in his honor. The conference took place in West Lafayette, Indiana, from December 2 to 5, 1993. The main themes were Gautschi's principal interests: approximation, orthogonal polynomials, quadrature, and special functions. Approximately 80 scientists attended the conference, and in this book there are 38 contributions which were all fully refereed. Walter Gautschi wrote a very entertaining personal account, *Reflections and Recollections*, illustrated with some very nice pictures. This is certainly recommended reading. A list of publications of Walter Gautschi containing 150 items is also included.

J. S. Byrnes, J. L. Byrnes, K. A. Hargreaves, and K. Berry, Eds., *Wavelets and Their Applications*, NATO ASI, Series C: Mathematical and Physical Sciences **442**, Kluwer, Dordrecht, 1994, xii + 415 pp.

This volume contains 19 papers presented at the NATO Advanced Study Institute on *Wavelets and Their Applications*, held at Il Ciocco resort near Lucca, Italy, between August 16 and 29, 1992. Many of the world's experts in the field of wavelets were principal speakers. Papers in these proceedings include applications of wavelets to random processes, time-frequency estimation in general and Gabor representations in particular, wavelet packets for data compression, multiscale statistical modeling, applications of frame-like expansions, Clifford wavelets and Hardy spaces (for solving partial differential equations), group representations, the continuous wavelet transform and the generalized modulus of continuity, perturbations of the dilation equation, and neural networks.

S. P. Singh, Ed., *Approximation Theory, Wavelets and Applications*, NATO ASI, Series C: Mathematical and Physical Sciences **454**, Kluwer, Dordrecht, 1995, xxiii + 572 pp.

These are the proceedings of the NATO Advanced Study Institute on recent developments in approximation Theory, wavelets, and applications, held at the Hotel Villa del Mare, in Maratea, Italy, from May 16 to 26, 1994. As usual, the proceedings of NATO Advanced Study Institutes contain valuable surveys together with up-to-date developments of the subject. This is usually of great help in giving direction for future research and it stimulates

collaborative research. In this volume, which is dedicated to the 65th birthday of E. W. Cheney, there are 40 contributions dealing with constructive multivariate approximation, theory of splines, wavelets (spline, polynomial, and trigonometric), interpolation, polynomial and rational approximation, radial basis functions, weighted polynomial approximation, Liapunov theory, and integral equations. Furthermore, a number of scientific applications are presented, such as speech denoising, image denoising, and other applications in signal and image processing. According to the list of participants, 94 people attended this NATO Advanced Study Institute.

M. W. Müller, M. Felten, and D. H. Mache, Eds., *Approximation Theory*, Mathematical Research **86**, Akademie Verlag, Berlin, 1995, 332 pp.

The first *International Dortmund Meeting on Approximation Theory* was held from March 13 to 17, 1995, at the Dortmund University conference centre in Witten, Nordrhein-Westfalen, Germany, and brought together 43 mathematicians from 9 countries. This volume contains the detailed manuscripts of the 12 invited lectures together with a selection of papers relating to the research talks presented at this conference. The 19 papers in this book deal with topics such as approximation by positive linear operators, diffusion equations, shape preserving approximation, polynomial and spline interpolation, density problems in multivariate approximation, orthogonal polynomials, and wavelets.

M. E. H. Ismail, M. Z. Nashed, A. I. Zayed, and A. F. Ghaleb, Eds., *Mathematical Analysis, Wavelets, and Signal Processing*, Contemporary Mathematics **190**, American Mathematical Society, Providence, RI, 1995, x + 354 pp.

These are the proceedings of an international conference that took place January 3–9, 1994 at Cairo University, Egypt. Some 54 mathematicians and engineers, representing 10 countries, gathered together to exchange ideas and to discuss new research trends. A selection of 25 of the invited and contributed papers is published here. Topics include linear operators, boundary value problems, expansions in special functions, wavelets, sampling, spline approximations, and Hilbert kernels. All contributions were fully refereed and contain original research not published elsewhere. Worth mentioning is a contribution of Paul Butzer on *Mathematics in Egypt and its connections with the court school of Charlemagne*. This author announced his retirement and at this occasion Rolf Nessel dedicated a survey of Butzer's contributions to approximation theory.

K. Jarosz, Ed., *Function Spaces*, Lecture Notes in Pure and Applied Mathematics **172**, Dekker, New York, 1995, xi + 389 pp.

The *Second Conference on Function Spaces* was held at Southern Illinois University in Edwardsville, Illinois, from May 24 to 28, 1994. There were about 120 participants representing 20 countries. This book contains 33 contributions, most of which are expanded versions of lectures delivered at the conference, while some others have been included by invitation. The papers cover a wide range of topics, including spaces and algebras of analytic functions of one and several variables,  $L^p$ -spaces, spaces of Banach-valued functions, isometries of function spaces, and geometry of Banach spaces.