are dealt with. The only method described is based on rank-1 rules, and a sequence of embedded rules leading to a full rank rule. In addition, the rank-1 rules used are obtained by means of the restricted Korobov search. (It is worth noting that the only other lattice based software available, in the NAG scientific subroutine library, is based on rank-1 rules obtained in a similar manner.) Pseudo-code for the method is provided, and two appendices contain "recommended choices" for the rank-1 rules. It would perhaps have been more useful to have provided an ftp address for the reader to obtain the actual programs and tables electronically.

As an overview of lattice methods and their properties the book reads well. At times, however, the reader gets the feeling that the whole story is not yet known, and that results are obtained by a process of erosion. Chapter 9 is a prime example, where results on the numbers of rules with specific order, or invariants are given. The book provides an accessible entry point for anyone who wishes to understand the essentials of lattice rules, and armed with it, the interested reader will be more ready to deal with the sections on lattice rules in [3] and [4].

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4[44-01, 42A38, 44A10, 44A15, 44A20, 33C10, 33C25]—*Integral transforms and their applications*, by L. Debnath, CRC Press, Boca Raton, FL, 1995, xvii+457 pp., 24 cm, $69.95

This book gives the standard integral transforms (Fourier, Laplace, Hankel, Mellin, Hilbert, Stieltjes, finite Fourier and Laplace, Z transforms and transforms with orthogonal polynomials (Legendre, Jacobi, Gegenbauer, Laguerre and Hermite)). In all chapters applications are given (Laplace transform applications are given in a separate chapter) for all kinds of boundary value problems, there is an Appendix with main properties of special functions that are used as kernels, and there are thirteen tables of integral transforms. Each chapter has worked examples, applications and exercises, and there is an extensive bibliography and a section with hints and answers to selected exercises.

The book was developed as a result from teaching advanced undergraduates and first-hear graduate students in mathematics, physics and engineering, and the author felt the need to provide lecture notes that were not too advanced for the beginner. This gives the book a quite recognizable place between other texts and

reference books: the treatment of all transforms is rather to the point, without more advanced rigorous proofs. The many proofs given are usually formal without for example, discussing topics as the validity of interchanging the order of integration. This is not a point of criticism but to indicate the style of the book.

I expect that the book is a useful addition to the existing literature, of which many books are out of print, or indeed too simple or too advanced for those interested in applications of integral transforms. Those familiar with a modern setting of boundary value problems and integration theory may find the book useful when figuring out what is possible with certain types of transforms or differential equations. Comparing this book with my favorite one, "The Use of Integral Transforms" (1972, McGraw-Hill) by I. N. Sneddon, I should stay with the latter, but the present book gives many new references and I am not sure about the availability of Sneddon's book in the book stores.

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