Anyone interested in Fourier and related transforms should find this book a valuable reference volume to have in his library.

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20[62Q05, 62E15, 62E99, 62G15, 62J99].—R. E. ODEH & J. M. DAVENPORT (Coeditors), N. S. PEARSON (Managing Editor), *Selected Tables in Mathematical Statistics*, Vol. 10, Amer. Math. Soc., Providence, R. I., 1986, xi + 347 pp., 26 cm. Price $39.00.

The volume contains two tables whose entries can be quite useful for statisticians in diverse applications. The opening table gives percentiles, P, of the distribution of positive definite quadratic forms in normal variables, $\sum_{i=1}^k \lambda_i x_i^2$ where x_i is $N(0, 1)$ and $\lambda_i > 0$, $\sum_{i=1}^k \lambda_i = 1$. There are percentile entries corresponding to $P = 0.001$, 0.005, 0.01 (0.01)0.19, 0.20 (0.05) 0.80, 0.81 (0.01)0.99, 0.995, 0.999; for $k = 2(1)10$, and λ's in multiples of 0.05.

The second table lists confidence limits on the correlation coefficient ρ, associated with a bivariate normal distribution. Let r_0 be the observed value of ρ, and n the sample size; then confidence limits are given for values of $r_0 = -0.98(0.02)0.98$; $n = 3(1)80(5)100(10)200(25)300(50)600(100)1000$, and for $1 - \alpha$ and $\alpha = 0.005, 0.01$, 0.025, 0.05, 0.10, 0.25.

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21[65–06, 65M50, 65N50, 65R20].—D. J. PADDON & H. HOLSTEIN (Editors), *Multigrid Methods for Integral and Differential Equations*, The Institute of Mathematics and its Applications Conference Series, Clarendon Press, Oxford, 1985, xii + 323 pp., 24 cm. Price $36.40.

These are the proceedings of a Summer School/Workshop held at the University of Bristol, England, in September of 1983. Most of the papers were substantially revised after the meeting and reflect the state of affairs as of the effective closing date of the proceedings (July 1984). The volume opens with four contributions of the guest speakers: A. Brandt, "Introduction—Levels and scales" (10 pp.), outlines the philosophical underpinnings and the scope of the subject; W. Hackbusch, "Multigrid methods of the second kind" (73 pp.), is a substantial review of multigrid methods for integral equations; P. W. Hemker & P. M. de Zeeuw, "Some implementations of multigrid linear system solvers" (32 pp.), provides a guide to the design and implementation of programs for multigrid methods applied to general elliptic problems of the convection-diffusion type; P. Sonneveld, P. Wesseling & P. M. de Zeeuw, "Multigrid and conjugate gradient methods as convergence acceleration techniques" (51 pp.), treats multigrid and conjugate gradient methods as a means of accelerating iterative methods. The remainder of the book is devoted to

contributed papers, some of them, like the paper by J. Ruge & K. Stüben on algebraic multigrid methods (44 pp.), themselves substantial contributions.

W. G.

22[65–06, 65L10].—U. M. ASCHER & R. D. RUSSELL (Editors), *Numerical Boundary Value ODEs*, Progress in Scientific Computing, Vol. 5, Birkhäuser, Boston, 1985, xii + 317 pp., 23 cm. Price $34.95.

These are the proceedings of an international workshop held in Vancouver, Canada, July 10–13, 1984. There are 18 contributions reviewing recent progress in the numerical solution of two-point boundary value problems. They are grouped into five sections entitled: Conditioning, dichotomy and related numerical considerations: Implementation aspects of various methods; Singular perturbation ("stiff") problems; Bifurcation problems and delay differential equations; Special applications.

W. G.