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introduction to a major topic in wavelet analysis, recent research results, analysis of key historical developments, and a detailed list of references, *Wavelet Analysis and Multiresolution Methods* explores the construction, analysis, computation, and application of multiwavelets, scaling vectors, nonhomogeneous refinement, multivariate orthogonal and biorthogonal wavelets, and much more.

Yves MEYER, Ronald COIFMAN. — **Wavelets: Calderón-Zygmund and multilinear operators.** — Translated by David Salinger. — Cambridge studies in advanced mathematics, vol. 48. — Un vol. broché, $15 \times 22,5$, de XIX, 314 p. — ISBN 0-521-79473-0. — Prix: £24.95 (relié: £42.50). — Cambridge University Press, Cambridge, 1997.

Now in paperback, this remains one of the classic expositions of the theory of wavelets from two of the subject's leading experts. In this volume the theory of paradifferential operators and the Cauchy kernel on Lipschitz curves are discussed with the emphasis firmly on their connection with wavelet bases. Sparse matrix representations of these operators can be given in terms of wavelet bases which have important applications in image processing and numerical analysis. The method is now widely studied and can be used to tackle a wide variety of problems arising in science and engineering. Put simply, this is an essential purchase for anyone researching the theory of wavelets.

Transformations intégrales, calcul opérationnel

Joel L. SCHIFF. — **The Laplace transform: theory and applications.** — Undergraduate texts in mathematics. — Un vol. relié, $16,5 \times 24,5$, de XIV, 233 p. — ISBN 0-387-98698-7. — Prix: DM 79.00. — Springer, New York, 1999.

The Laplace transform is an extremely versatile technique for solving differential equations, both ordinary and partial. It can also be used to solve difference equations. Even the Dirac delta function, which is normally covered in a heuristic fashion is given a completely justifiable treatment in the context of the Riemann-Stieltjes integral, yet at a level an undergraduate student can appreciate. When it comes to the deepest part of the theory, the complex inversion formula, knowledge of poles, residues, and contour integration of meromorphic functions is required. To this end, an entire chapter is devoted to the fundamentals of complex analysis.

Equations intégrales

Ricardo ESTRADA, Ram P. KANWAL. — **Singular integral equations.** — Un vol. relié, 16×24 , de XII, 427 p. — ISBN 0-8176-4085-1. — Prix: SFr. 118.00. — Birkhäuser, Boston, 2000.

This work focuses exclusively on the distributional solutions of singular integral equations, progressing from basic concepts of the classical theory to the more difficult two-dimensional problems. Key features of the work include: systematic progression from basic classical concepts to more advanced distribution type solutions; applications to a variety of fields, including potential theory, mechanics, fluid dynamics, wave scattering, statistics, and population dynamics; extensive examples, illustrations, and problem sets; good bibliography and index.

Analyse fonctionnelle

J. CUNTZ, S. ECHTERHOFF, (Editors). — **C*-algebras: proceedings of the SFB-Workshop on C*-Algebras, Münster, Germany, March 8-12, Germany.** — Un vol. broché, $15,5 \times 23,5$, de XI, 272 p. — ISBN 3-540-67562-0. — Prix: DM 129.00. — Springer, Berlin, 2000.

This book represents the refereed proceedings of the SFB-Workshop on C*-Algebras which was held at Münster in March 1999. It contains articles by some of the best researchers on the