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which has been developed and used in fields as diverse as special functions, differential equations, probability theory, representation theory, measure theory, Hopf algebras, and quantum groups. Other timely topics include the harmonic analysis of analytic functions, ergodic theory and wavelets.

Sundaram THANGAVELU. — **Harmonic analysis on the Heisenberg group.** — Progress in mathematics, vol. 159. — Un vol. relié, 16×24, de XII, 191 p. — ISBN 0-8176-4050-9. — Prix: SFr. 88.00. — Birkhäuser, Boston, 1998.

This monograph deals with various aspects of harmonic analysis on the Heisenberg group, which is the most commutative among the non-commutative Lie groups, and hence gives the greatest opportunity for generalizing the remarkable results of Euclidean harmonic analysis. The aim of this text is to demonstrate how the standard results of Abelian harmonic analysis take shape in the non-Abelian setup of the Heisenberg group. Several results in this monograph appear for the first time in book form, and some theorems have not appeared elsewhere. Topics covered include the Plancherel and Paley-Wiener theorems, spectral theory of the sublaplacian, Wiener-Tauberian theorems, Bochner-Riesz means and multipliers for the Fourier transform.

### *Equations intégrales*

Andrei D. POLYANIN and Alexander V. MANZHIROV. — **Handbook of integral equations.** — Un vol. relié, 19×26, de XXVII, 787 p. — ISBN 0-8493-2876-4. — Prix: DM 228.00. — CRC Press, Boca Raton, Florida, distributed by Springer-Verlag, Berlin, 1998.

This book contains more than 2100 integral equations and their solutions and describes new exact solutions to linear and nonlinear equations. Integral equations are considered in relation to various fields of mechanics and theoretical physics, including elasticity, plasticity, hydrodynamics, heat and mass transfer, and electrodynamics. It outlines exact, approximate analytical, and numerical methods for solving linear and nonlinear integral equations and describes symbolic methods, singular integral equations, and translational integral equations. The book includes supplements, featuring properties of elementary and special functions, tables of indefinite and definite integrals, and tables of Laplace, Mellin, and other transforms.

### *Analyse fonctionnelle et théorie des opérateurs*

Sheldon AXLER, John E. MCCARTHY, Donald SARASON. — **Holomorphic spaces.** — Mathematical Sciences Research Institute publications, 33. — Un vol. relié, 16,5×24, de IX, 476 p. — ISBN 0-521-63193-9. — Prix: £35.00. — Cambridge University Press, Cambridge, 1998

This a collection of expository articles arising from MSRI's Fall 1995 program on holomorphic spaces. The opening article gives an overview of several aspects of the subject. The remaining articles, while more specialized, are nevertheless designed to be accessible to the non expert. A range of topics is addressed: Bergman spaces, Hankel operators in various guises, the Dirichlet space, subnormal operators, operators models, interpolation problems, systems theory. The concluding article describes an approach to certain commuting families of nonselfadjoint operators in which operator theory is linked with algebraic geometry.

David E. EVANS, Yasuyuki KAWAHIGASHI. — **Quantum symmetries on operator algebras.** — Oxford mathematical monographs. — Un vol. relié, 16×24, de XXV, 829 p. — ISBN 0-19-851175-2. — Prix: £ 105.00. — Oxford, Oxford University Press, 1998.

This is one of the first books to look at the remarkable connections recently made with knot theory, 3-manifolds, quantum groups and integrable systems in statistical mechanics and