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relié, 16×24, de xii, 404 p. — ISBN 0-691-00498-6. — Prix: US\$69.50. — Princeton University Press, Princeton, 1999.

One of the most important topics the authors address here is the holomorphic extension of functions and mappings which satisfy the tangential Cauchy-Riemann equations on real submanifolds. They present the main results in this area with a novel and self-contained approach. The book devotes considerable attention to the study of holomorphic mappings between real submanifolds, and proves finite determination of such mappings by their jets under some optimal assumptions. The authors also give a thorough comparison of the various nondegeneracy conditions for manifolds and mappings and present new geometric interpretations of these conditions. Throughout the book, Cauchy-Riemann vector fields and their orbits play a central role and are presented in a setting both general and elementary.

## *Fonctions spéciales*

George E. ANDREWS, Richard ASKEY, Ranjan ROY. — **Special functions.** — Encyclopedia of mathematics and its applications, vol. 71. — Un vol. relié, 16×24, de xvi, 664 p. — ISBN 0-521-62321-9. — Prix: £55.00. — Cambridge University Press, Cambridge, 1999.

This treatise presents an overview of special functions, focusing primarily on hypergeometric functions and the associated hypergeometric series, including Bessel functions and classical orthogonal polynomials. The basic building block of the functions studied in this book is the gamma functions. In addition to relatively new work on gamma and beta functions, such as Selberg's multidimensional integrals, a number of important but relatively unknown nineteenth century results are included. The authors discuss Wilson's beta integral and the associated orthogonal polynomials. Some  $q$ -extensions of beta integrals and hypergeometric series are presented with Bailey chains employed to derive some results. An introduction to spherical harmonics and applications of special functions to combinatorial problems are included. The book also deals with finite field versions of some beta integrals.

William B. JONES, A. Sri RANGA, (Editors). — **Orthogonal functions, moment theory, and continued fractions: theory and applications.** — Lecture notes in pure and applied mathematics, vol. 199. — Un vol. broché, 17,5×25,5, de xii, 416 p. — ISBN 0-8247-0207-7. — Prix: US\$165.00. — Marcel Dekker, Inc., New York, 1998.

Featuring the insights of nearly 30 contributors, *Orthogonal Functions, Moment Theory, and Continued Fractions* analyzes the asymptotic behavior of continued fraction coefficients for the Binet and gamma functions... details new results on orthogonal Laurent polynomials... computes special functions in the complex domain using continued fractions... uses the Freud conjecture to analyze the coefficients of Stieltjes continued fractions for the first time... presents new results using Szegő polynomials and their application to frequency analysis... develops new results on strong moment theory and orthogonal rational functions using finite Blaschke products... proves that a two-parameter subfamily can subsume a four-parameter family of twin-convergence regions for continued fractions... etc.

## *Equations différentielles ordinaires*

Angelo FAVINI, Atsushi YAGI. — **Degenerate differential equations in Banach spaces.** — Pure and applied mathematics, vol. 215. — Un vol. relié, 16×23,5, de xi, 313 p. — ISBN 0-8247-1677-9. — Prix: US\$155.00. — Marcel Dekker Inc., New York, 1998.

This book contains a detailed study of linear abstract degenerate differential equations and the regularity of their relations, using the semigroups generated by multivalued (linear)