Contents

Foreword vii
Preface ix

Computational Methods in Special Functions—A Survey 1
Walter Gautschi
Purdue University, West Lafayette, Indiana

Unsolved Problems in the Asymptotic Estimation of Special Functions 99
F. W. J. Olver
University of Maryland, College Park, Maryland

Periodic Bernoulli Numbers, Summation Formulas and Applications 143
Bruce C. Berndt
University of Illinois at Urbana-Champaign, Urbana, Illinois

Problems and Prospects for Basic Hypergeometric Functions 191
George E. Andrews
Pennsylvania State University, University Park, Pennsylvania

An Introduction to Association Schemes and Coding Theory 225
N. J. A. Sloane
Bell Telephone Laboratories, Murray Hill, New Jersey

Linear Growth Models with Many Types and Multidimensional Hahn Polynomials 261
S. Karlin and J. McGregor
Stanford University, Stanford, California

Orthogonal Polynomials Revisited 289
K. M. Case
The Rockefeller University, New York, New York

Symmetry, Separation of Variables, and Special Functions 305
Willard Miller, Jr.
University of Minnesota, Minneapolis, Minnesota

Nicholson-Type Integrals for Products of Gegenbauer Functions and Related Topics 353
L. Durand
University of Wisconsin–Madison, Madison, Wisconsin

Positivity and Special Functions 375
George Gasper
Northwestern University, Evanston, Illinois

Two-Variable Analogues of the Classical Orthogonal Polynomials 435
Tom Koornwinder
Mathematical Centre, Amsterdam, The Netherlands

Special Functions of Matrix and Single Argument in Statistics 497
Alan T. James
The University of Adelaide, Adelaide, South Australia

Some Properties of Determinants of Orthogonal Polynomials 521
Samuel Karlin and James McGregor
Stanford University, Stanford, California

Index 551