

Contents

Preface	ix
Bibliography	xi
Hypergeometric Functions	
On digamma series convertible into hypergeometric series ASENA ÇETINKAYA and DMITRII KARP	3
Double summation addition theorems for Jacobi functions of the first and second kind HOWARD S. COHL, ROBERTO S. COSTAS-SANTOS, LOYAL DURAND, CAMILO MONTOYA, and GESTUR ÓLAFSSON	25
On bounds for ratios of contiguous hypergeometric functions JAVIER SEGURA	71
Expansion of the Ferrers function of the first kind in a trigonometric series HANS VOLKMER	95
An infinite product of incomplete Beta function-type hypergeometric functions, and its probabilistic origins NICHOLAS S. WITTE	101
Generalizations and Extensions	
The quadratic reciprocity law and the Gauss–Schering lemma HENG HUAT CHAN and TEOH GUAN CHUA	129
Apéry-like sequences defined by four-term recurrence relations SHAUN COOPER	137
Counting matrix points on certain varieties over finite fields YIFENG HUANG, KEN ONO, and HASAN SAAD	181

Hypergeometry and the AGM over finite fields ELEANOR MCSPIRIT and KEN ONO	197
The Heun eigenvalue problem and some of its special cases HANS VOLKMER	211
Hyper-Mahler measures via Goncharov–Deligne cyclotomy YAJUN ZHOU	239