

Contents

Foreword	vii	18 Orthogonal Polynomials	
Preface	ix	T. H. Koornwinder, R. Wong, R. Koekoek, R. F. Swarttouw	435
Mathematical Introduction	xiii	19 Elliptic Integrals	
1 Algebraic and Analytic Methods		B. C. Carlson	485
R. Roy, F. W. J. Olver, R. A. Askey, R. Wong	1	20 Theta Functions	
2 Asymptotic Approximations		W. P. Reinhardt, P. L. Walker	523
F. W. J. Olver, R. Wong	41	21 Multidimensional Theta Functions	
3 Numerical Methods		B. Deconinck	537
N. M. Temme	71	22 Jacobian Elliptic Functions	
4 Elementary Functions		W. P. Reinhardt, P. L. Walker	549
R. Roy, F. W. J. Olver	103	23 Weierstrass Elliptic and Modular Functions	
5 Gamma Function		W. P. Reinhardt, P. L. Walker	569
R. A. Askey, R. Roy	135	24 Bernoulli and Euler Polynomials	
6 Exponential, Logarithmic, Sine, and Cosine Integrals		K. Dilcher	587
N. M. Temme	149	25 Zeta and Related Functions	
7 Error Functions, Dawson's and Fresnel Integrals		T. M. Apostol	601
N. M. Temme	159	26 Combinatorial Analysis	
8 Incomplete Gamma and Related Functions		D. M. Bressoud	617
R. B. Paris	173	27 Functions of Number Theory	
9 Airy and Related Functions		T. M. Apostol	637
F. W. J. Olver	193	28 Mathieu Functions and Hill's Equation	
10 Bessel Functions		G. Wolf	651
F. W. J. Olver, L. C. Maximon	215	29 Lamé Functions	
11 Struve and Related Functions		H. Volkmer	683
R. B. Paris	287	30 Spheroidal Wave Functions	
12 Parabolic Cylinder Functions		H. Volkmer	697
N. M. Temme	303	31 Heun Functions	
13 Confluent Hypergeometric Functions		B. D. Sleeman, V. B. Kuznetsov	709
A. B. Olde Daalhuis	321	32 Painlevé Transcendents	
14 Legendre and Related Functions		P. A. Clarkson	723
T. M. Dunster	351	33 Coulomb Functions	
15 Hypergeometric Function		I. J. Thompson	741
A. B. Olde Daalhuis	383	34 $3j, 6j, 9j$ Symbols	
16 Generalized Hypergeometric Functions and Meijer G-Function		L. C. Maximon	757
R. A. Askey, A. B. Olde Daalhuis	403	35 Functions of Matrix Argument	
17 q-Hypergeometric and Related Func- tions		D. St. P. Richards	767
G. E. Andrews	419	36 Integrals with Coalescing Saddles	
		M. V. Berry, C. J. Howls	775
		Bibliography	795
		Notations	873
		Index	887