

Contents

CHAPTER 5

Abelian functions	1
1. Power series in several variables	1
2. The preparation theorem.	4
3. Regular functions	13
4. Meromorphic functions	19
5. The theorem of Weierstrass and Cousin	23
6. The period group	32
7. Jacobian functions	38
8. Linearization of the exponent system	53
9. The period relations	59
10. The reduced exponent system	65
11. Existence proofs	70
12. Picard varieties	84
13. The addition theorem	94

CHAPTER 6

Modular functions of several variables	106
1. Automorphic functions of several variables	106
2. Algebraic relations between automorphic functions	113
3. Symplectic geometry	122
4. Abelian functions and modular functions	131
5. The fundamental region of the modular group	144
6. Modular forms	159
7. The field of modular functions	172
8. Algebraic dependence	181
Bibliography	193
Cumulative index volumes I, II, and III	241