CONTENTS

Chapter	I.	Elementary theory of holomorphic convexity.	
	1.1.	Preliminaries.	1
	1.2.	Hartogs domains.	4
	1.3.	Open sets of holomorphy.	5
	1.4.	Levi-convexity.	12
Chapter	II.	Psuedoconcave manifolds.	
	2.1.	Preliminaries.	19
	2.2.	Meromorphic functions and holomorphic line bundles.	22
	2.3.	Pseudoconcave manifolds.	27
	2.4.	Analytic and algebraic dependence of meromorphic functions.	31
	2.5.	Algebraic fields of meromorphic functions.	35
Chapter	III.	Properly discontinuous pseudoconcave groups; the Siegel modular group.	
	3.1.	Preliminaries.	40
	3.2.	Pseudoconcave properly discontinuous groups.	43
	3.3.	Siegel modular group.	45
	3.4.	Psuedoconcavity of the modular group.	47
	3.5.	Poincaré series.	52
Chapter	IV.	Projective imbeddings of pseudoconcave manifolds.	
	4.1.	Meausre of pseudoconcavity.	56
	4.2.	The problem of projective imbedding of pseudoconcave manifolds.	59
	4.3.	Solution of the problem for 0-concave manifolds.	63
	4.4.	The case of $\dim_{\mathbb{C}} X \geq 3$.	67
Chapter	V.	Meromorphic functions on complex spaces.	
	5.1.	Preliminaries.	71
	5.2.	Psuedoconcavity for complex spaces.	73
	5.3.	The Poincaré problem.	74
	5.4.	Relative theorems.	82

Chapter	VI.	E.E. Levi problem.	
	6.1.	Preliminaries.	86
	6.2.	E.E. Levi problem.	92
	6.3.	Proof of Grauert's theorem.	94
	6.4.	Characterization of projective algebraic manifolds. Kodaira's theorem.	103
Chapter	VII.	Generalizations of the Levi-problem.	
	7.1.	d-open sets of holomorphy.	111
	7.2.	Proof of theorem $(\text{Grauert})_d$.	113
	7.3.	Finiteness theorems.	118
	7.4.	Applications to projective algebraic manifolds.	119
Chapter	VIII.	Duality theorems on complex manifolds.	
	8.1.	Preliminaries.	124
	8.2.	Čech homology on complex manifolds.	128
	8.3.	Duality between cohomology and homology.	130
	8.4.	Čech homology and the functor EXT.	131
	8.5.	Divisors and Riemann-Roch theorem.	138
Chapter	IX.	The H. Lewy problem.	
	9.1.	Preliminaries.	147
	9.2.	Maijer-Vietrois sequence.	150
	9.3.	Bochner theorem.	154
	9.4.	Riemann-Hilbert and Cauchy problem.	155
	9.5.	Cauchy problem as a vanishing theorem for cohomology.	158
	9.6.	Non-validity of Poincaré lemma for the complex $\{\mathcal{Q}(S), \bar{\partial}_S\}$.	160
	9.7.	Global results.	163
Bibliography.			166