
CONTENTS

Preface	vii
Acknowledgments	ix
Introduction	3
PART I. SHAFAREVICH MAPS	
CHAPTER 1. Lefschetz-Type Theorems for π_1	19
CHAPTER 2. Families of Algebraic Cycles	27
CHAPTER 3. Shafarevich Maps and Variants	36
CHAPTER 4. The Fundamental Group and the Classification of Algebraic Varieties	49
PART II. AUTOMORPHIC FORMS: CLASSICAL THEORY	
CHAPTER 5. The Method of Poincaré	59
CHAPTER 6. The Method of Atiyah	71
CHAPTER 7. Surjectivity of the Poincaré Map	81
CHAPTER 8. Ball Quotients	92
PART III. VANISHING THEOREMS	
CHAPTER 9. The Kodaira Vanishing Theorem	105
CHAPTER 10. Generalizations of the Kodaira Vanishing Theorem	115
CHAPTER 11. Vanishing of L^2 -Cohomologies	127
CHAPTER 12. Rational Singularities and Hodge Theory	133
PART IV. AUTOMORPHIC FORMS REVISITED	
CHAPTER 13. The Method of Gromov	141
CHAPTER 14. Nonvanishing Theorems	151
CHAPTER 15. Plurigenera in Etale Covers	161
CHAPTER 16. Existence of Automorphic Forms	167
PART V. OTHER APPLICATIONS AND SPECULATIONS	
CHAPTER 17. Applications to Abelian Varieties	175
CHAPTER 18. Open Problems and Further Remarks	183
References	191
Index	201