

Preface to the English Edition

This is the English translation of the second volume of the original Japanese book. In this volume, the idea of class field theory—a highlight in algebraic number theory—is first described with many concrete examples. A detailed account of proofs is thoroughly expounded in the final chapter. We also explain the local-global method in number theory, including ideles and adèles. Basic properties of zeta and L -functions are established and used to prove the prime number theorem and Dirichlet's theorem on prime numbers in an arithmetic progression. The authors hope that the readers enjoy the beauty of the world of numbers and obtain fundamental knowledge in modern number theory.

Kazuya Kato, Nobushige Kurokawa, Takeshi Saito