

# Contents

<b>Chapter 1.</b> An Introduction to Zeta Functions by P. Cartier . . . . .	1
<b>Chapter 2.</b> Introduction to Compact Riemann Surfaces, Jacobians, and Abelian Varieties by J.-B. Bost . . . . .	64
<b>Chapter 3.</b> Elliptic Curves by H. Cohen . . . . .	212
<b>Chapter 4.</b> Introduction to Modular Forms by D. Zagier . . . . .	238
<b>Chapter 5.</b> Decorated Elliptic Curves: Modular Aspects by R. Gergondey . . . . .	292
<b>Chapter 6.</b> Galois Theory, Algebraic Number Theory, and Zeta Functions by H. M. Stark . . . . .	313
<b>Chapter 7.</b> Galois Theory for Coverings and Riemann Surfaces by E. Reyssat . . . . .	394
<b>Chapter 8.</b> Differential Galois Theory by F. Beukers . . . . .	413
<b>Chapter 9.</b> p-adic Numbers and Ultrametricity by G.Christol . . . . .	440
<b>Chapter 10.</b> Introduction to Lattice Geometry by M. Senechal . . . . .	476
<b>Chapter 11.</b> A Short Introduction to Quasicrystallography by A. Katz . . . . .	496
<b>Chapter 12.</b> Gap Labelling Theorems for Schrödinger Operators by J. Bellissard . . . . .	538
<b>Chapter 13.</b> Circle Maps: Irrationally Winding by P. Cvitanović . . . . .	631
<b>Chapter 14.</b> An Introduction to Small Divisors Problems by J. -C. Yoccoz . . . . .	659
<b>Index</b> . . . . .	680