## Abstract

This book is about the development of reciprocity laws, starting from conjectures of Euler and discussing the contributions of Legendre, Gauss, Dirichlet, Jacobi, and Eisenstein. Readers knowledgeable in basic algebraic number theory and Galois theory will find detailed discussions of the reciprocity laws for quadratic, cubic, quartic, sextic and octic residues, rational reciprocity laws, and Eisensteins reciprocity law. An extensive bibliography will particularly appeal to readers interested in the history of reciprocity laws or in the current research in this area.

## Inhalt

- 1. The Genesis of Quadratic Reciprocity
- 2. Quadratic Number Fields
- 3. Cyclotomic Number Fields
- 4. Power Residues and Gauss Sums
- 5. Rational Reciprocity Laws
- 6. Quartic Reciprocity
- 7. Cubic Reciprocity
- 8. Eisenstein's Analytic Proofs
- 9. Octic Reciprocity
- 10. Gauss's Last Entry
- 11. Eisenstein Reciprocity
- Appendix
- A. Dramatis Personae
- B. Chronology of Proofs.