

<<有限场及伽罗瓦环讲义LECTUR>>

图书基本信息

书名：<<有限场及伽罗瓦环讲义LECTURES ON FINITE FIELDS AND GALOIS RINGS>>

13位ISBN编号：9789812385703

10位ISBN编号：9812385703

出版时间：2003-12

出版商：World Scientific Pub Co Inc

作者：Wan, Zhe-Xian

页数：342

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

内容概要

This is a textbook for graduate and upper level undergraduate students in mathematics, computer science, communication engineering and other fields. The explicit construction of finite fields and the computation in finite fields are emphasised. In particular, the construction of irreducible polynomials and the normal basis of finite fields are included. The essentials of Galois rings are also presented. This invaluable book has been written in a friendly style, so that lecturers can easily use it as a text and students can use it for self-study. A great number of exercises have been incorporated. --This text refers to the Hardcover edition.

书籍目录

1 Sets and Integers 1.1 Sets and Maps 1.2 The Factorization of Integers 1.3 Equivalence Relation and Partition
1.4 Exercises2 Groups 2.1 The Concept of a Group and Examples 2.2 Subgroups and Cosets 2.3 Cyclic
Groups 2.4 Exercises3 Fields and Rings 3.1 Fields 3.2 The Characteristic of a Field 3.3 Rings and Integral
Domains 3.4 Field of Fractions of an Integral Domain 3.5 Divisibility in a Ring 3.6 Exercises4 Polynomials 4.1
Polynomial Rings 4.2 Division Algorithm 4.3 Euclidean Algorithm 4.4 Unique Factorization of Polynomials
4.5 Exercises5 Residue Class Rings 5.1 Residue Class Rings 5.2 Examples 5.3 Residue Class Fields 5.4 More
Examples 5.5 Exercises6 Structure of Finite Fields 6.1 The Multiplicative Group of a Finite Field 6.2 The
Number of Elements in a Finite Field 6.3 Existence of Finite Field with pn Elements 6.4 Uniqueness of Finite
Field with pn Elements 6.5 Subfields of Finite Fields 6.6 A Distinction between Finite Fields of Characteristic 2
and Not 2 6.7 Exercises7 Further Properties of Finite Fields 7.1 Automorphisms 7.2 Characteristic Polynomials
and Minimal Polynomials 7.3 Primitive Polynomials 7.4 Trace and Norm 7.5 Quadratic Equations 7.6
Exercises8 Bases 8.1 Bases and Polynomial Bases 8.2 Dual Bases.....9 Factoring Polynomials over Finite Fields
10 Irreducible Polynomials over Finite Fields 11 Quadratic Forms over Finite Fields 12 More Group Theory
and Ring Theory 13 Hensel's Lemma and Hensel Lift 14 Galois Rings BibliographyIndex

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>