Record Nr. UNISA996418203603316 Autore Hachenberger Dirk Titolo Topics in Galois fields / / Dirk Hachenberger and Dieter Jungnickel Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2020] ©2020 **ISBN** 3-030-60806-9 Edizione [1st ed. 2020.] 1 online resource (XIV, 785 p. 11 illus.) Descrizione fisica Algorithms and Computation in Mathematics, , 1431-1550;; 29 Collana Disciplina 512.3 Finite fields (Algebra) Soggetti Galois theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Basic Algebraic Structures and Elementary Number Theory -- Basics on Polynomials- Field Extensions and the Basic Theory of Galois Fields --The Algebraic Closure of a Galois Field -- Irreducible Polynomials over Finite Fields -- Factorization of Univariate Polynomials over Finite Fields -- Matrices over Finite Fields -- Basis Representations and Arithmetics -- Shift Register Sequences -- Characters, Gauss Sums, and the DFT --Normal Bases and Cyclotomic Modules -- Complete Normal Bases and Generalized Cyclotomic Modules -- Primitive Normal Bases -- Primitive Elements in Affin Hyperplanes -- List of Symbols -- References --Index. Sommario/riassunto This monograph provides a self-contained presentation of the foundations of finite fields, including a detailed treatment of their algebraic closures. It also covers important advanced topics which are not yet found in textbooks: the primitive normal basis theorem, the existence of primitive elements in affine hyperplanes, and the Niederreiter method for factoring polynomials over finite fields. We give streamlined and/or clearer proofs for many fundamental results and treat some classical material in an innovative manner. In particular, we emphasize the interplay between arithmetical and structural results, and we introduce Berlekamp algebras in a novel way which provides a deeper understanding of Berlekamp's celebrated factorization

algorithm. The book provides a thorough grounding in finite field

theory for graduate students and researchers in mathematics. In view of its emphasis on applicable and computational aspects, it is also useful for readers working in information and communication engineering, for instance, in signal processing, coding theory, cryptography or computer science.

2. Record Nr. UNINA9910886992203321

Autore Trelat Emmanuel

Titolo Control in Finite and Infinite Dimension / / by Emmanuel Trélat

Pubbl/distr/stampa Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2024

ISBN 9789819759484

981975948X

Edizione [1st ed. 2024.]

Descrizione fisica 1 online resource (145 pages)

Collana SpringerBriefs on PDEs and Data Science, , 2731-7609

Disciplina 629.8312

Soggetti System theory

Control theory

Differential equations
Mathematical optimization
Systems Theory, Control
Differential Equations

Optimization

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references.

Nota di contenuto Chapter 1 Controllability -- Chapter 2. Optimal control -- Chapter 3

Stabilization -- Chapter 4 Semigroup theory -- Chapter 5 Linear

control systems in Banach spaces.

Sommario/riassunto This book is the result of various master and summer school courses

the author has taught. The objective is to provide the reader with an introduction to control theory and to the main tools allowing to treat general control systems. The author hopes this book will serve as motivation to go deeper into the theory or numerical aspects that are not covered in this book. This book might be helpful for graduate

students and researchers in the field of control theory.

3. Record Nr. UNINA9911024160503321

Autore Zdarta Jakub

Titolo Polish Achievements in Materials Science and Engineering

Pubbl/distr/stampa MDPI - Multidisciplinary Digital Publishing Institute, 2025

Descrizione fisica 1 electronic resource (332 p.)

Soggetti Historyofengineeringandtechnology

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia