

1. Record Nr.	UNINA9910634035603321
Autore	Rotondi Alberto
Titolo	Probability, Statistics and Simulation : With Application Programs Written in R // by Alberto Rotondi, Paolo Pedroni, Antonio Pievatolo
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-09429-8
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (643 pages)
Collana	La Matematica per il 3+2, , 2038-5757 ; ; 139
Disciplina	519.50285 519.5
Soggetti	Statistics Probabilities Applied Probability
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Probability -- 2 Representation of random phenomena -- 3 Basic probability theory -- 4 Multivariate Probability Theory -- 5 Functions of random variables -- 6 Basic statistics: parameter estimation -- 7 Basic statistics: hypothesis testing -- 8 Monte Carlo methods -- 9 Applications of Monte Carlo methods -- 10 Statistical inference and likelihood -- 11 Least squares -- 12 Experimental data analysis -- Appendix A: Table of symbols 533 -- Appendix B: R software 535 -- Appendix C: Moment-generating functions 539 -- Appendix D: Solutions of problems 543 -- Appendix E: Tables.
Sommario/riassunto	This book presents in a compact form the program carried out in introductory statistics courses and discusses some essential topics for research activity, such as Monte Carlo simulation techniques, methods of statistical inference, best fit and analysis of laboratory data. All themes are developed starting from fundamentals, highlighting their applicative aspects, up to the detailed description of several cases particularly relevant for technical and scientific research. The text is dedicated to university students in scientific fields and to all researchers who have to solve practical problems by applying data analysis and simulation procedures. The R software is adopted throughout the book, with a rich library of original programs accessible

to the readers through a website.

2. Record Nr.	UNINA9910731456903321
Autore	Fried Michael D
Titolo	Field Arithmetic // by Michael D. Fried, Moshe Jarden
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-28020-2
Edizione	[4th ed. 2023.]
Descrizione fisica	1 online resource (839 pages)
Collana	Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge / A Series of Modern Surveys in Mathematics, , 2197-5655 ; ; 11
Altri autori (Persone)	JardenMoshe
Disciplina	658.40301 512.3
Soggetti	Algebra Mathematics Geometry, Algebraic Algebraic fields Polynomials Geometry Logic, Symbolic and mathematical Algebraic Geometry Field Theory and Polynomials Mathematical Logic and Foundations Cossos algebraics Teoria algebraica de nombres Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1 Infinite Galois Theory and Profinite Groups -- 2 Valuations -- 3 Linear Disjointness -- 4 Algebraic Function Fields of One Variable -- 5 The Riemann Hypothesis for Function Fields -- 6 Plane Curves -- 7 The Chebotarev Density Theorem -- 8 Ultraproducts -- 9 Decision Procedures -- 10 Algebraically Closed Fields -- 11 Elements of Algebraic Geometry -- 12 Pseudo Algebraically Closed Fields -- 13

Hilbertian Fields -- 14 The Classical Hilbertian Fields -- 15 The Diamond Theorem -- 16 Nonstandard Structures -- 17 The Nonstandard Approach to Hilbert's Irreducibility Theorem -- 18 Galois Groups over Hilbertian Fields -- 19 Small Profinite Groups -- 20 Free Profinite Groups -- 21 The Haar Measure -- 22 Effective Field Theory and Algebraic Geometry -- 23 The Elementary Theory of ω -Free PAC Fields -- 24 Problems of Arithmetical Geometry -- 25 Projective Groups and Frattini Covers -- 26 PAC Fields and Projective Absolute Galois Groups -- 27 Frobenius Fields -- 28 Free Profinite Groups of Infinite Rank -- 29 Random Elements in Profinite Groups -- 30 ω -free PAC Fields -- 31 Hilbertian Subfields of Galois Extensions -- 32 Undecidability -- 33 Algebraically Closed Fields with Distinguished Automorphisms -- 34 Galois Stratification -- 35 Galois Stratification over Finite Fields -- 36 Problems of Field Arithmetic.

Sommario/riassunto

This book uses algebraic tools to study the elementary properties of classes of fields and related algorithmic problems. The first part covers foundational material on infinite Galois theory, profinite groups, algebraic function fields in one variable and plane curves. It provides complete and elementary proofs of the Chebotarev density theorem and the Riemann hypothesis for function fields, together with material on ultraproducts, decision procedures, the elementary theory of algebraically closed fields, undecidability and nonstandard model theory, including a nonstandard proof of Hilbert's irreducibility theorem. The focus then turns to the study of pseudo algebraically closed (PAC) fields, related structures and associated decidability and undecidability results. PAC fields (fields K with the property that every absolutely irreducible variety over K has a rational point) first arose in the elementary theory of finite fields and have deep connections with number theory. This fourth edition substantially extends, updates and clarifies the previous editions of this celebrated book, and includes a new chapter on Hilbertian subfields of Galois extensions. Almost every chapter concludes with a set of exercises and bibliographical notes. An appendix presents a selection of open research problems. Drawing from a wide literature at the interface of logic and arithmetic, this detailed and self-contained text can serve both as a textbook for graduate courses and as an invaluable reference for seasoned researchers.
