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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Introduction -- 2 Decision Theory -- 3 Introduction to General Methods of Estimation -- 4 Sufficient Statistics, Exponential Families, and Estimation -- 5 Testing Hypotheses -- 6 Consistency and Asymptotic Distributions and Statistics -- 7 Large Sample Theory of Estimation in Parametric Models -- 8 Tests in Parametric and Nonparametric Models -- 9 The Nonparametric Bootstrap -- 10 Nonparametric Curve Estimation -- 11 Edgeworth Expansions and the Bootstrap -- 12 Frechet Means and Nonparametric Inference on Non-Euclidean Geometric Spaces -- 13 Multiple Testing and the False Discovery Rate -- 14 Markov Chain Monte Carlo (MCMC) Simulation and

Bayes Theory -- 15 Miscellaneous Topics -- Appendices -- Solutions of Selected Exercises in Part 1.

Sommario/riassunto

This graduate-level textbook is primarily aimed at graduate students of statistics, mathematics, science, and engineering who have had an undergraduate course in statistics, an upper division course in analysis, and some acquaintance with measure theoretic probability. It provides a rigorous presentation of the core of mathematical statistics. Part I of this book constitutes a one-semester course on basic parametric mathematical statistics. Part II deals with the large sample theory of statistics — parametric and nonparametric, and its contents may be covered in one semester as well. Part III provides brief accounts of a number of topics of current interest for practitioners and other disciplines whose work involves statistical methods. Large Sample theory with many worked examples, numerical calculations, and simulations to illustrate theory Appendices provide ready access to a number of standard results, with many proofs Solutions given to a number of selected exercises from Part I Part II exercises with a certain level of difficulty appear with detailed hints Rabi Bhattacharya, PhD,has held regular faculty positions at UC, Berkeley; Indiana University; and the University of Arizona. He is a Fellow of the Institute of Mathematical Statistics and a recipient of the U.S. Senior Scientist Humboldt Award and of a Guggenheim Fellowship. He has served on editorial boards of many international journals and has published several research monographs and graduate texts on probability and statistics, including Nonparametric Inference on Manifolds, co-authored with A. Bhattacharya. Lizhen Lin, PhD, is Assistant Professor in the Department of Statistics and Data Science at the University of Texas at Austin. She received a PhD in Mathematics from the University of Arizona and was a Postdoctoral Associate at Duke University. Bayesian nonparametrics, shape constrained inference, and nonparametric inference on manifolds are among her areas of expertise. Vic Patrangenaru, PhD, is Professor of Statistics at Florida State University. He received PhDs in Mathematics from Haifa, Israel, and from Indiana University in the fields of differential geometry and statistics, respectively. He has many research publications on Riemannian geometry and especially on statistics on manifolds. He is a co-author with L. Ellingson of Nonparametric Statistics on Manifolds and Their Applications to Object Data Analysis. .