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Encyclopedia of Statistical Sciences, Volume 15Notes on Asymptotic Methods in Statistical Decision TheoryAsymptotic StatisticsHandbuch der sozialwissenschaftlichen DatenanalyseStatistical Decision Theory and Related Topics IVSignal Processing in Radar SystemsStatistical Decision Theory and Related Topics VStatistical Decision Theory and Bayesian AnalysisStatistical Decision TheoryStatistical Decision Theory and Related Topics IVAsymptotic Methods in Probability and StatisticsMathematical StatisticsNotes on asymptotic methods in statistical decision theoryAsymptotic Theory of Statistics and ProbabilityStatistical Decision Theory and Related Topics IIIStatistical Experiments and DecisionsFrom Finite Sample to Asymptotic Methods in StatisticsFrom Statistics to Mathematical FinanceAsymptotic Methods in Statistical TheoryStatistical Experiments and DecisionsTheory of StatisticsAsymptotics in StatisticsStatistical Decision TheoryThe Statistical Theory of ShapeQualitätssicherung bei zensierten DatenAsymptotic Theory of Statistical Inference for Time SeriesAdvances in Inequalities from Probability Theory and StatisticsRobust Asymptotic StatisticsStatistical Methods in Software EngineeringAdvances in Statistical Decision Theory and ApplicationsComparison of Statistical ExperimentsEncyclopedia of Statistical Sciences, Volume 1Information Criteria and Statistical ModelingAsymptotic Methods in Statistical Decision TheoryAsymptotics in StatisticsMathematische Statistik IIExact Statistical Methods for Data AnalysisMathematical Theory of StatisticsTheoretical StatisticsSmoothing Methods in Statistics

Encyclopedia of Statistical Sciences, Volume 15 Now available in paperback, this book covers some recent developments in statistical inference. It provides methods applicable in problems involving nuisance parameters such as those encountered in comparing two exponential distributions or in ANOVA without the assumption of equal error variances. The generalized procedures are shown to be more powerful in detecting significant experimental results and in avoiding misleading conclusions.

Notes on Asymptotic Methods in Statistical Decision Theory The Fifth Purdue International Symposium on Statistical Decision The was held at Purdue University during the period of ory and Related Topics June 14-19,1992. The symposium brought together many prominent leaders and younger researchers in statistical decision theory and related areas. The format of the Fifth Symposium was different from the previous symposia in that in addition to the 54 invited papers, there were 81 papers presented in contributed paper sessions. Of the 54 invited papers presented at the sym posium, 42 are collected in this volume. The papers are grouped into a total of six parts: Part 1 - Retrospective on Wald's Decision Theory and Sequential Analysis; Part 2 - Asymptotics and Nonparametrics; Part 3 - Bayesian Analysis; Part 4 - Decision Theory and Selection Procedures; Part 5 - Probability and Probabilistic Structures; and Part 6 - Sequential, Adaptive, and Filtering Problems. While many of the papers in the volume give the latest theoretical developments in these areas, a large number are either applied or creative review papers.

Asymptotic Statistics The Fourth Purdue Symposium on Statistical Decision Theory and Related Topics was held at Purdue University during the period June 15-20, 1986. The symposium brought together many prominent leaders and younger researchers in statistical decision theory and related areas. The 65 invited papers and discussions presented at the symposium are collected in this two-volume work. The papers are grouped into a total of seven parts. Volume I has three parts: Part 1 -Conditioning and Likelihood; Part f! - Bayes and Empirical Bayes Analysis; and Part 9 -Decision Theoretic Estimation. Part 1 contains the proceedings of a Workshop on Conditioning, which was held during the symposium. Most of the articles in Volume I involve either conditioning or Bayesian ideas, resulting in a volume of considerable interest to conditionalists and Bayesians as well as to decision-theorists. Volume II has four parts: Part 1 -Selection, Ranking, and Multiple Com parisons; fart f! -Asymptotic and Sequential Analysis; Part 9 -Estimation and Testing; and Part -4 -Design and Comparison of Experiments and Distributions. These articles encompass the leading edge of much current research in math ematical statistics, with decision theory, of course, receiving special emphasis. It should be noted that the papers in these two volumes are by no means all theoretical; many are applied in nature or are creative review papers.

Handbuch der sozialwissenschaftlichen Datenanalyse In the summer of 1968 one of the present authors (LLC) had the pleasure of giving a sequence of lectures at the University of Mon treal. Lecture notes were collected and written out by Drs. Catherine Doleans, Jean Haezendonck and Roch Roy. They were published in French by the Presses of the University of Montreal as part of their series of Seminaires de Mathematiques Superieures. Twenty years later it was decided that a Chinese translation could be useful, but upon prodding by Professor Shanti Gupta at Purdue we concluded that the notes should be updated and rewritten in English and in Chinese. The present volume is the result of that effort. We have preserved the general outline of the lecture notes, but we have deleted obsolete material and sketched some of the results acquired during the past twenty years. This means that while the original notes concentrated on the LAN situation we have included here some results of Jeganathan and others on the LAMN case. Also included are versions of the Hajek-Le Cam asymptotic minimax and convolution theorems with some of their implications. We have not attempted to give complete coverage of the subject and have often stated theorems without indicating their proofs.

Statistical Decision Theory and Related Topics IV This book, dedicated to Winfried Stute on the occasion of his 70th birthday, presents a unique collection of contributions by leading experts in statistics, stochastic processes, mathematical finance and insurance. The individual chapters cover a wide variety of topics ranging from nonparametric estimation, regression modelling and asymptotic bounds for estimators, to shot-noise processes in finance, option pricing and volatility modelling. The book also features review articles, e.g. on survival analysis.

Signal Processing in Radar Systems Shanti S. Gupta has made pioneering contributions to ranking and selection theory; in particular, to subset selection theory. His list of publications and the numerous citations his publications have received over the last forty years will amply testify to this fact. Besides ranking and selection, his interests include order statistics and reliability theory. The first editor's association with Shanti Gupta goes back to 1965 when he came to Purdue to do his Ph.D. He has the good fortune of being a student, a colleague and a long-standing collaborator of Shanti Gupta. The second editor's association with Shanti Gupta began in 1978 when he started his research in the area of order statistics. During the past twenty years, he has collaborated with Shanti Gupta on several publications. We both feel that our lives have been enriched by our association with him. He has indeed been a friend, philosopher and guide to us.

Statistical Decision Theory and Related Topics V This unique book delivers an encyclopedic treatment of classic as well as contemporary large sample theory, dealing with both statistical problems and probabilistic issues and tools. The book is unique in its detailed coverage of fundamental topics. It is written in an extremely lucid style, with an emphasis on the conceptual discussion of the importance of a problem and the impact and relevance of the theorems. There is no other book in large sample theory that matches this book in coverage, exercises and examples, bibliography, and lucid conceptual discussion of issues and theorems.

Statistical Decision Theory and Bayesian Analysis This volume provides an exposition of some fundamental aspects of the asymptotic theory of statistical experiments. The most important of them is "how to construct asymptotically optimal decisions if we know the structure of optimal decisions for the limit experiment". Contents:Statistical Experiments and Their ComparisonConvergence of Statistical Experiments(γ,Γ)-Models. Convergence to (γ,Γ)-ModelsLocal Convergence of Statistical Experiments and Global EstimationStatistical Inference for Autoregressive Models of the First Order Readership: Researchers in probability and statistics. Keywords:Comparison of Statistical Experiments;Mixed Local Asymptotic Normality;Convergence of Experiments;Likelihood Ratio Processes;Contiguity;Autoregressive Models;Minimax Bound;Local Asymptotic NormalityReviews: "It is an interesting, welcome addition to the literature, and it contains many new insights. I congratulate the authors for writing this comprehensive monograph on a difficult subject." Mathematical Reviews "The book is a highlight in modern mathematical statistics which offers a lot of new concepts. It recalls the brilliant methodology of Le Cam's Theory and the first chapters may be used as introduction into this field." Mathematics Abstracts

Statistical Decision Theory This is the first in a series of research monographs that focus on the research, development and use of inequalities in probability and statistics. All of the papers have been peer refereed and this first edition covers a range of topics that include both survey material of published work as well as new results appearing in print for the first time.

Statistical Decision Theory and Related Topics IV Statistical modeling is a critical tool in scientific research. This book provides comprehensive explanations of the concepts and philosophy of statistical modeling, together with a wide range of practical and numerical examples. The authors expect this work to be of great value not just to statisticians but also to researchers and practitioners in various fields of research such as information science, computer science, engineering, bioinformatics, economics, marketing and environmental science. It's a crucial area of study, as statistical models are used to understand phenomena with uncertainty and to determine the structure of complex systems. They're also used to control such systems, as well as to make reliable predictions in various natural and social science fields.

Asymptotic Methods in Probability and Statistics The Fourth Purdue Symposium on Statistical Decision Theory and Related Topics was held at Purdue University during the period June 15-20, 1986. The symposium brought together many prominent leaders and younger researchers in statistical decision theory and related areas. The 65 invited papers and discussions presented at the symposium are collected in this two-volume work. The papers are grouped into a total of seven parts. Volume I has three parts: Part 1 -Conditioning and Likelihood; Part 2 -Bayes and Empirical Bayes Analysis; and Part 3 -Decision Theoretic Estimation. Part 1 contains the proceedings of a Workshop on Conditioning, which was held during the symposium. Most of the articles in Volume I involve either conditioning or Bayesian ideas, resulting in a volume of considerable interest to conditionalists and Bayesians as well as to decision-theorists. Volume II has four parts: Part 1 -Selection, Ranking, and Multiple Com parisons; Part 2 -Asymptotic and Sequential Analysis; Part 3 -Estimation and Testing; and Part 4 -Design and Comparison of Experiments and Distributions. These articles encompass the leading edge of much current research in math ematical statistics, with decision theory, of course, receiving special emphasis. It should be noted that the papers in these two volumes are by no means all theoretical; many are applied in nature or are creative review papers.

Mathematical Statistics This book presents a detailed description of the development of statistical theory. In the mid twentieth century, the development of mathematical statistics

underwent an enduring change, due to the advent of more refined mathematical tools. New concepts like sufficiency, superefficiency, adaptivity etc. motivated scholars to reflect upon the interpretation of mathematical concepts in terms of their real-world relevance. Questions concerning the optimality of estimators, for instance, had remained unanswered for decades, because a meaningful concept of optimality (based on the regularity of the estimators, the representation of their limit distribution and assertions about their concentration by means of Anderson's Theorem) was not yet available. The rapidly developing asymptotic theory provided approximate answers to questions for which non-asymptotic theory had found no satisfying solutions. In four engaging essays, this book presents a detailed description of how the use of mathematical methods stimulated the development of a statistical theory. Primarily focused on methodology, questionable proofs and neglected questions of priority, the book offers an intriguing resource for researchers in theoretical statistics, and can also serve as a textbook for advanced courses in statisticc.

Notes on asymptotic methods in statistical decision theory A comprehensive treatment of statistical experiments and an essential reference for mathematical statisticians.

Asymptotic Theory of Statistics and Probability For advanced graduate students, this book is a one-stop shop that presents the main ideas of decision theory in an organized, balanced, and mathematically rigorous manner, while observing statistical relevance. All of the major topics are introduced at an elementary level, then developed incrementally to higher levels. The book is self-contained as it provides full proofs, worked-out examples, and problems. The authors present a rigorous account of the concepts and a broad treatment of the major results of classical finite sample size decision theory and modern asymptotic decision theory. With its broad coverage of decision theory, this book fills the gap between standard graduate texts in mathematical statistics and advanced monographs on modern asymptotic theory.

Statistical Decision Theory and Related Topics III This monograph presents a radical rethinking of how elementary inferences should be made in statistics, implementing a comprehensive alternative to hypothesis testing in which the control of the probabilities of the errors is replaced by selecting the course of action (one of the available options) associated with the smallest expected loss. Its strength is that the inferences are responsive to the elicited or declared consequences of the erroneous decisions, and so they can be closely tailored to the client's perspective, priorities, value judgments and other prior information, together with the uncertainty about them.

Statistical Experiments and Decisions Das Handbuch der sozialwissenschaftlichen Datenanalyse bietet in über 40 Kapiteln eine umfassende Darstellung multivariater Analyseverfahren. Schwerpunkte des Handbuchs bilden Grundlagen der Datenanalyse, regressionsanalytische Verfahren für Quer- und Längsschnittsdaten sowie Skalierungsverfahren. Behandelt werden u. a. OLS-, logistische und robuste Regression, Strukturgleichungsmodelle, Mehrebenen-, Panel-, Ereignisdaten- und Zeitreihenanalyse, MDS und Rasch-Modelle. Darüber hinaus werden viele neuere Verfahren dargestellt, etwa multiple Imputation, Bootstrappen, Analyse latenter Klassen und propensity score matching. Jedes Kapitel beginnt mit einer allgemein verständlichen Einführung. Es folgt eine Darstellung der mathematisch-statistischen Grundlagen. Anschließend wird jedes Verfahren anhand eines sozialwissenschaftlichen Beispiels vorgestellt. Die Beiträge enden mit Hinweisen auf typische Anwendungsfehler und einer kommentierten Literaturempfehlung.

From Finite Sample to Asymptotic Methods in Statistics

From Statistics to Mathematical Finance The series is devoted to the publication of monographs and high-level textbooks in mathematics, mathematical methods and their applications. Apart from covering important areas of current interest, a major aim is to make topics of an interdisciplinary nature accessible to the non-specialist. The works in this series are addressed to advanced students and researchers in mathematics and theoretical physics. In addition, it can serve as a guide for lectures and seminars on a graduate level. The series de Gruyter Studies in Mathematics was founded ca. 30 years ago by the late Professor Heinz Bauer and Professor Peter Gabriel with the aim to establish a series of monographs and textbooks of high standard, written by scholars with an international reputation presenting current fields of research in pure and applied mathematics. While the editorial board of the Studies has changed with the years, the aspirations of the Studies are unchanged. In times of rapid growth of mathematical knowledge carefully written monographs and textbooks written by experts are needed more than ever, not least to pave the way for the next generation of mathematicians. In this sense the editorial board and the publisher of the Studies are devoted to continue the Studies as a service to the mathematical community. Please submit any book proposals to Niels Jacob.

Asymptotic Methods in Statistical Theory Statistical Decision Theory and Related Topics III, Volume 2 is a collection of papers presented at the Third Purdue Symposium on Statistical Decision Theory and Related Topics, held at Purdue University in June 1981. The symposium brought together many prominent leaders and a number of younger researchers in statistical decision theory and related areas. This volume contains the research papers presented at the symposium and includes works on general decision theory, multiple decision theory, optimum experimental design, sequential and adaptive inference, Bayesian analysis, robustness, and large sample theory. These research areas have seen rapid developments since the preceding Purdue Symposium in 1976, developments reflected by the variety and depth of the works in this volume. Statisticians and mathematicians will find the book very insightful.

Statistical Experiments and Decisions This book is an introduction to the field of asymptotic statistics. The treatment is both practical and mathematically rigorous. In addition to most of the standard topics of an asymptotics course, including likelihood inference, M-estimation, the theory of asymptotic efficiency, U-statistics, and rank procedures, the book also presents recent research topics such as semiparametric models, the bootstrap, and empirical processes and their applications. The topics are organized from the central idea of approximation by limit experiments, which gives the book one of its unifying themes. This entails mainly the local approximation of the classical i.i.d. set up with smooth parameters by location experiments involving a single, normally distributed observation. Thus, even the standard subjects of asymptotic statistics are presented in a novel way. Suitable as a graduate or Master s level statistics text, this book will also give researchers an overview of the latest research in asymptotic statistics.

Theory of Statistics Intended as the text for a sequence of advanced courses, this book covers major topics in theoretical statistics in a concise and rigorous fashion. The discussion assumes a background in advanced calculus, linear algebra, probability, and some analysis and topology. Measure theory is used, but the notation and basic results needed are presented in an initial chapter on probability, so prior knowledge of these topics is not essential. The presentation is designed to expose students to as many of the central ideas and topics in the discipline as possible, balancing various approaches to inference as well as exact, numerical, and large sample methods. Moving beyond more standard material, the book includes chapters introducing bootstrap methods, nonparametric regression, equivariant estimation, empirical Bayes, and sequential design and analysis. The book has a rich collection of exercises. Several of them illustrate how the theory developed in the book may be used in various applications. Solutions to many of the exercises are included in an appendix.

Asymptotics in Statistics Unvollständige Daten sind ein häufiges Problem in der Qualitätssicherung. Dieses Buch bietet eine umfassende Übersicht über statistische Modelle und Methoden, die zur Überprüfung von Hypothesen über im Produktionsprozeß auftretende Parameter geeignet sind.

Statistical Decision Theory In establishing a framework for dealing with uncertainties in software engineering, and for using quantitative measures in related decision-making, this text puts into perspective the large body of work having statistical content that is relevant to software engineering. Aimed at computer scientists, software engineers, and reliability analysts who have some exposure to probability and statistics, the content is pitched at a level appropriate for research workers in software reliability, and for graduate level courses in applied statistics computer science, operations research, and software engineering.

The Statistical Theory of Shape This book grew out of lectures delivered at the University of California, Berkeley, over many years. The subject is a part of asymptotics in statistics, organized around a few central ideas. The presentation proceeds from the general to the particular since this seemed the best way to emphasize the basic concepts. The reader is expected to have been exposed to statistical thinking and methodology, as expounded for instance in the book by H. Cramer [1946] or the more recent text by P. Bickel and K. Doksum [1977]. Another pos sibility, closer to the present in spirit, is Ferguson [1967]. Otherwise the reader is expected to possess some mathematical maturity, but not really a great deal of detailed mathematical knowledge. Very few mathematical objects are used; their assumed properties are simple; the results are almost always immediate consequences of the definitions. Some objects, such as vector lattices, may not have been included in the standard background of a student of statistics. For these we have provided a summary of relevant facts in the Appendix. The basic structures in the whole affair are systems that Blackwell called "experiments" and "transitions" between them. An "experiment" is a mathe matical abstraction intended to describe the basic features of an observational process if that process is contemplated in advance of its implementation. Typically, an experiment consists of a set E> of theories about what may happen in the observational process.

Qualitätssicherung bei zensierten Daten ENCYCLOPEDIA OF STATISTICAL SCIENCES

Asymptotic Theory of Statistical Inference for Time Series An essential task in radar systems is to find an appropriate solution to the problems related to robust signal processing and the definition of signal parameters. Signal Processing in Radar Systems addresses robust signal processing problems in complex radar systems and digital signal processing subsystems. It also tackles the important issue of defining signal parameters. The book presents problems related to traditional methods of synthesis and analysis of the main digital signal processing operations. It also examines problems related to modern methods of robust signal processing in noise, with a focus on the generalized approach to signal processing in noise under coherent filtering. In addition, the book puts forth a new problem statement and new methods to solve problems of adaptation and control by functioning processes. Taking a systems approach to designing complex radar systems, it offers readers guidance in solving optimization problems. Organized into three parts, the book first discusses the main design principles of the modern robust digital signal processing algorithms used in complex radar systems. The second part covers the main principles of computer system design for these algorithms and provides real-world examples of systems. The third part deals with experimental measurements of the main statistical parameters of stochastic processes. It also defines their estimations for robust signal processing in complex radar systems. Written by an internationally recognized professor and expert in signal processing, this book summarizes investigations carried out over the past 30 years. It supplies practitioners, researchers, and students with general principles for designing the robust digital signal processing algorithms employed by complex radar systems.

Advances in Inequalities from Probability Theory and Statistics ENCYCLOPEDIA OF STATISTICAL SCIENCES

Robust Asymptotic Statistics The primary aim of this book is to provide modern statistical techniques and theory for stochastic processes. The stochastic processes mentioned here are not restricted to the usual AR, MA, and ARMA processes. A wide variety of stochastic processes, including non-Gaussian linear processes, long-memory processes, nonlinear processes, non-ergodic processes and diffusion processes are described. The authors discuss estimation and testing theory and many other relevant statistical methods and techniques.

Statistical Methods in Software Engineering One of the aims of the conference on which this book is based, was to provide a platform for the exchange of recent findings and new ideas inspired by the so-called Hungarian construction and other approximate methodologies. This volume of 55 papers is dedicated to Miklós Csörgő a co-founder of the Hungarian construction school by the invited speakers and contributors to ICAMPS'97. This excellent treatize reflects the many developments in this field, while pointing to new directions to be explored. An unequalled contribution to research in probability and statistics.

Advances in Statistical Decision Theory and Applications In general terms, the shape of an object, data set, or image can be de fined as the total of all information that is invariant under translations, rotations, and isotropic rescalings. Thus two objects can be said to have the same shape if they are similar in the sense of Euclidean geometry. For example, all equilateral triangles have the same shape, and so do all cubes. In applications, bodies rarely have exactly the same shape within measure ment error. In such cases the variation in shape can often be the subject of statistical analysis. The last decade has seen a considerable growth in interest in the statis tical theory of shape. This has been the result of a synthesis of a number of different areas and a recognition that there is considerable common ground among these areas in their study of shape variation. Despite this synthesis of disciplines, there are several different schools of statistical shape analysis. One of these, the Kendall school of shape analysis, uses a variety of mathe matical tools from differential geometry and probability, and is the subject of this book. The book does not assume a particularly strong background by the reader in these subjects, and so a brief introduction is provided to each of these topics. Anyone who is unfamiliar with this material is advised to consult a more complete reference. As the literature on these subjects is vast, the introductory sections can be used as a brief guide to the literature.

Comparison of Statistical Experiments This volume provides an exposition of some fundamental aspects of the asymptotic theory of statistical experiments. The most important of them is ?how to construct asymptotically optimal decisions if we know the structure of optimal decisions for the limit experiment?.

Encyclopedia of Statistical Sciences, Volume 1

Information Criteria and Statistical Modeling A broad view of exact statistical inference and the development of asymptotic statistical inference.

Asymptotic Methods in Statistical Decision Theory This volume is the second edition of a work that presents a coherent introduction to the subject of asymptotic statistics as it has developed in the past 50 years. The second edition differs from the first in that it has been made more 'reader friendly'. It also includes a new chapter, Chapter 4, on Gaussian and Poisson experiments because of their growing role in the field, especially in nonparametrics and semi-parametrics. Most of the subsequent chapters have been entirely rewritten and the nonparametrics of Chapter 7 have been amplified. Much of the material has been taught in a second year graduate course at Berkeley for 30 years. It represents a link between traditional material including maximum likelihood, and Wald's Theory of Statistical Decision Functions together with comparison and distances for experiments. This volume is not intended to replace monographs on specialized subjects, but it will help to place them in a coherent perspective.Lucien Le Cam is Professor of Statistics and Mathematics (Emeritus) at the University of California, Berkeley. He is the author of numerous papers on asymptotics and Asymptotic Methods in Statistical Decision Theory, Springer Verlag (1986). He was co-editor, with J. Neyman and E. Scott of the Berkeley Symposia on Mathematical Statistics and Probability. Grace Lo Yang is Professor, Department of Mathematics, University of Maryland, College Park. She is a long time holder of a Faculty Appointment at the National Institute of Standards and Technology, Gaithersburg, MD. Her research activities include stochastic modeling in physical sciences and theory of incomplete data.

Asymptotics in Statistics The aim of this graduate textbook is to provide a comprehensive advanced course in the theory of statistics covering those topics in estimation, testing, and large sample theory which a graduate student might typically need to learn as preparation for work on a Ph.D. An important strength of this book is that it provides a mathematically rigorous and even-handed account of both Classical and Bayesian inference in order to give readers a broad perspective. For example, the "uniformly most powerful" approach to testing is contrasted with available decision-theoretic approaches.

Mathematische Statistik II

Exact Statistical Methods for Data Analysis In this new edition the author has added substantial material on Bayesian analysis, including lengthy new sections on such important topics as empirical and hierarchical Bayes analysis, Bayesian calculation, Bayesian communication, and group decision making. With these changes, the book can be used as a self-contained introduction to Bayesian analysis. In addition, much of the decision-theoretic portion of the text was updated, including new sections covering such modern topics as minimax multivariate (Stein) estimation.

Mathematical Theory of Statistics 1 To the king, my lord, from your servant Balasi : 2 The king should have a look. Maybe the scribe who reads to the king did not understand . . . . shall I personally show, with this tablet that I am sending to the king, my lord, how the omen was written. 3 Really, he who has not followed the text with his finger cannot possibly understand it. This book is about optimally robust functionals and their unbiased esti mators and tests. Functionals extend the parameter of the assumed ideal center model to neighborhoods of this model that contain the actual distri bution. The two principal questions are (F): Which functional to choose? and (P): Which statistical procedure to use for the selected functional? Using a local asymptotic framework, we deal with both problems by linking up nonparametric statistical optimality with infinitesimal robust ness criteria. Thus, seemingly separate developments in robust statistics are presented in a unifying way.

Theoretical Statistics Focussing on applications, this book covers a very broad range, including simple and complex univariate and multivariate density estimation, nonparametric regression estimation, categorical data smoothing, and applications of smoothing to other areas of statistics. It will thus be of particular interest to data analysts, as arguments generally proceed from actual data rather than statistical theory, while the "Background Material" sections will interest statisticians studying the field. Over 750 references allow researchers to find the original sources for more details, and the "Computational Issues" sections provide sources for statistical software that use the methods discussed. Each chapter includes exercises with a heavily computational focus based upon the data sets used in the book, making it equally suitable as a textbook for a course in smoothing.

Smoothing Methods in Statistics