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Probability and Statistics **Optimal Statistical Decisions** *Statistics in the Law* **Student Solutions Manual for Probability and Statistics Optimal Statistical Decisions Studyguide for Probability and Statistics by DeGroot, Morris H., ISBN 9780321500465** Bayesian Analysis and Uncertainty in Economic Theory **Principles of Uncertainty** *Studyguide for Probability and Statistics by Degroot, Morris H.* **Studyguide for Probability and Statistics by DeGroot, Morris H., ISBN 9780321831026 Probability Theory** *Probability and Statistics for Computer Science Mathematical Statistics with Resampling and R* A Modern Introduction to Probability and Statistics Statistical Decision Theory *Experiments in Environmental Economics* **Decision Theory** Basic Statistics **A celebration of statistics Introduction to Probability** *The Foundations of Positive and Normative Economics* **All of Statistics** *The Long and the Short of It (International edition)* **The Cult of Statistical**

Significance Introduction to Probability, Second Edition Probability and Statistics in Engineering and Management Science Uncertainty in Engineering The Algebra of Random Variables *Probability* **Measurement in Medicine The Foundations of Statistics** Bayesian Computation with R Probability Theory *Probability and Statistics* **Probability and Statistics** *Bayesian Statistics 4* Exploring Data Tables, Trends, and Shapes The Bentons **Clinical Management of Male Infertility** Elementary Applied Topology

The follies of finance have threatened the stability of the global economy, and the world of finance has become increasingly complex and sophisticated, but also greedy, cynical and self-interested. The Long and the Short of It provides a guide to the complexities of modern finance and explains how to put your finances in the only hands you can confidently trust - your own. In this new, wholly updated edition of The Long and the Short of It, you will learn everything you need to be your own investment manager. You will recognise your investment options, the institutions that try to sell them, and how to distinguish between fact and fiction in what companies say. You will discover the principles of sound investment and the research that supports these principles. Crucially, you will learn a practical investment strategy and how to implement it. Leading economist and hugely successful investor John Kay uses his academic credentials and practical experience to lay out the key principles of investment with characteristic clarity and dry humour. This is the only book about finance and investment anyone needs, and the one book they must

have. Decision theory is generally taught in one of two very different ways. When of opti taught by theoretical statisticians, it tends to be presented as a set of mathematical techniques mality principles, together with a collection of various statistical procedures. When useful in establishing the optimality taught by applied decision theorists, it is usually a course in Bayesian analysis, showing how this one decision principle can be applied in various practical situations. The original goal I had in writing this book was to find some middle ground. I wanted a book which discussed the more theoretical ideas and techniques of decision theory, but in a manner that was constantly oriented towards solving statistical problems. In particular, it seemed crucial to include a discussion of when and why the various decision prin ciples should be used, and indeed why decision theory is needed at all. This original goal seemed indicated by my philosophical position at the time, which can best be described as basically neutral. I felt that no one approach to decision theory (or statistics) was clearly superior to the others, and so planned a rather low key and impartial presentation of the competing ideas. In the course of writing the book, however, I turned into a rabid Bayesian. There was no single cause for this conversion; just a gradual realization that things seemed to ultimately make sense only when looked at from the Bayesian viewpoint.

9780872893795. This item is printed on demand. This book gives an introduction to the mathematics and applications comprising the new field of applied topology. The elements of this subject are surveyed in the context of applications drawn from the biological, economic, engineering, physical, and statistical sciences. Never HIGHLIGHT a Book Again! Includes all testable terms, concepts, persons, places, and events. Cram101 Just the FACTS101 studyguides gives all of the outlines, highlights, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanies: 9780321831026. This item is printed on demand. Taken literally, the title "All of Statistics" is an exaggeration. But in spirit, the title is apt, as the book does cover a much broader range of topics than a typical introductory book on mathematical statistics. This book is for people who want to learn probability and statistics quickly. It is suitable for graduate or advanced undergraduate students in computer science, mathematics, statistics, and related disciplines. The book includes modern topics like non-parametric curve estimation, bootstrapping, and classification, topics that are usually relegated to follow-up courses. The reader is presumed to know calculus and a little linear algebra. No previous knowledge of probability and statistics is required. Statistics, data mining, and machine learning are all concerned with collecting and analysing data. The revision of this well-respected text presents a balanced approach of the classical and Bayesian methods and now includes a new chapter on simulation (including Markov chain Monte Carlo and the Bootstrap), expanded coverage

of residual analysis in linear models, and more examples using real data. Probability & Statisticswas written for a one or two semester probability and statistics course offered primarily at four-year institutions and taken mostly by sophomore and junior level students, majoring in mathematics or statistics. Calculus is a prerequisite, and a familiarity with the concepts and elementary properties of vectors and matrices is a plus. Introduction to Probability; Conditional Probability; Random Variables and Distribution; Expectation; Special Distributions; Estimation; Sampling Distributions of Estimators; Testing Hypotheses; Categorical Data and Nonparametric Methods; Linear Statistical Models; Simulation For all readers interested in probability and statistics. The Wiley Classics Library consists of selected books that have become recognized classics in their respective fields. With these new unabridged and inexpensive editions, Wiley hopes to extend the life of these important works by making them available to future generations of mathematicians and scientists. This textbook is aimed at computer science undergraduates late in sophomore or early in junior year, supplying a comprehensive background in qualitative and quantitative data analysis, probability, random variables, and statistical methods, including machine learning. With careful treatment of topics that fill the curricular needs for the course, Probability and Statistics for Computer Science features: • A treatment of random variables and expectations dealing primarily with the discrete case. • A practical treatment of simulation, showing how many interesting probabilities and expectations can be

extracted, with particular emphasis on Markov chains. • A clear but crisp account of simple point inference strategies (maximum likelihood; Bayesian inference) in simple contexts. This is extended to cover some confidence intervals, samples and populations for random sampling with replacement, and the simplest hypothesis testing. • A chapter dealing with classification, explaining why it’s useful; how to train SVM classifiers with stochastic gradient descent; and how to use implementations of more advanced methods such as random forests and nearest neighbors. • A chapter dealing with regression, explaining how to set up, use and understand linear regression and nearest neighbors regression in practical problems. • A chapter dealing with principal components analysis, developing intuition carefully, and including numerous practical examples. There is a brief description of multivariate scaling via principal coordinate analysis. • A chapter dealing with clustering via agglomerative methods and k-means, showing how to build vector quantized features for complex signals. Illustrated throughout, each main chapter includes many worked examples and other pedagogical elements such as boxed Procedures, Definitions, Useful Facts, and Remember This (short tips). Problems and Programming Exercises are at the end of each chapter, with a summary of what the reader should know. Instructor resources include a full set of model solutions for all problems, and an Instructor's Manual with accompanying presentation slides. Differentiation and integration in the complex plane; The distribution of sums and differences of Random variables; The distribution of products and quotients of Random variables; The distribution of algebraic functions of independent

Random variables; The distribution of algebraic functions of independent H-function variables; Analytical model for evaluation of the H-function inversion integral; Approximating the distribution of an algebraic function of independent random variables; Distribution problems in statistics. Decision theory provides a formal framework for making logical choices in the face of uncertainty. Given a set of alternatives, a set of consequences, and a correspondence between those sets, decision theory offers conceptually simple procedures for choice. This book presents an overview of the fundamental concepts and outcomes of rational decision making under uncertainty, highlighting the implications for statistical practice. The authors have developed a series of self contained chapters focusing on bridging the gaps between the different fields that have contributed to rational decision making and presenting ideas in a unified framework and notation while respecting and highlighting the different and sometimes conflicting perspectives. This book: * Provides a rich collection of techniques and procedures. * Discusses the foundational aspects and modern day practice. * Links foundations to practical applications in biostatistics, computer science, engineering and economics. * Presents different perspectives and controversies to encourage readers to form their own opinion of decision making and statistics. Decision Theory is fundamental to all scientific disciplines, including biostatistics, computer science, economics and engineering. Anyone interested in the whys and wherefores of statistical science will find much to enjoy in this book. Presents a survey of the history and

evolution of the branch of mathematics that focuses on probability and statistics, including useful applications and notable mathematicians in this area. This manual contains completely worked-out solutions for all the odd-numbered exercises in the text. Developed from celebrated Harvard statistics lectures, Introduction to Probability provides essential language and tools for understanding statistics, randomness, and uncertainty. The book explores a wide variety of applications and examples, ranging from coincidences and paradoxes to Google PageRank and Markov chain Monte Carlo (MCMC). Additional The success of the Apgar score demonstrates the astounding power of an appropriate clinical instrument. This down-to-earth book provides practical advice, underpinned by theoretical principles, on developing and evaluating measurement instruments in all fields of medicine. It equips you to choose the most appropriate instrument for specific purposes. The book covers measurement theories, methods and criteria for evaluating and selecting instruments. It provides methods to assess measurement properties, such as reliability, validity and responsiveness, and interpret the results. Worked examples and end-of-chapter assignments use real data and well-known instruments to build your skills at implementation and interpretation through hands-on analysis of real-life cases. All data and solutions are available online. This is a perfect course book for students and a perfect companion for professionals/researchers in the medical and health sciences who care about the quality and meaning of the measurements they perform. Classic analysis of the foundations of

statistics and development of personal probability, one of the greatest controversies in modern statistical thought. Revised edition. Calculus, probability, statistics, and Boolean algebra are recommended. This title was first published in 2003.Over the decades, experiential methods have become an established research tool in environmental economics. Economists working in this area have realised that experimental methods from economics and other disciplines such as psychology and decision theory can be applied to gain insight into the behavioral underpinnings of environmental policy. Economic experiments, in the lab and field, are an attractive tool to address the incentive and contextual questions that arise in environmental policy. Experiments have been and continue to be designed to capture the key elements of market and non-market choices to test theory, for pattern recognition, to testbed new institutions, and to value public goods, including environmental protection. This volume collects the most significant papers in the literature that identify the underpinnings of experimental approaches are complemented by works that specifically address the use of experimental economics to identify choice under risk, conflict, cooperation, environmental policy instruments, and environmental valuation This clear exposition begins with basic concepts and moves on to combination of events, dependent events and random variables, Bernoulli trials and the De Moivre-Laplace theorem, and more. Includes 150 problems, many with answers. This book provides andrologists and other practitioners with reliable, up-to-date information on all aspects of male

infertility and is designed to assist in the clinical management of patients. Clear guidance is offered on classification of infertility, sperm analysis interpretation and diagnosis. The full range of types and causes of male infertility are then discussed in depth. Particular attention is devoted to poorly understood conditions such as unexplained couple infertility and idiopathic male infertility, but the roles of diverse disorders, health and lifestyle factors and environmental pollution are also fully explored. Research considered stimulating for the reader is highlighted, reflecting the fascinating and controversial nature of the field. International treatment guidelines are presented and the role of diet and dietary supplements is discussed in view of their increasing importance. Clinicians will find that the book’s straightforward approach ensures that it can be easily and rapidly consulted. This book is written for high school and college students learning about probability for the first time. It will appeal to the reader who has a healthy level of enthusiasm for understanding how and why the various results of probability come about. All of the standard introductory topics in probability are covered: combinatorics, the rules of probability, Bayes' theorem, expectation value, variance, probability density, common distributions, the law of large numbers, the central limit theorem, correlation, and regression. Calculus is not a prerequisite, although a few of the problems do involve calculus. These are marked clearly. The book features 150 worked-out problems in the form of examples in the text and solved problems at the end of each chapter.

These problems, along with the discussions in the text, will be a valuable resource in any introductory probability course, either as the main text or as a helpful supplement. " McCloskey and Ziliak have been pushing this very elementary, very correct, very important argument through several articles over several years and for reasons I cannot fathom it is still resisted. If it takes a book to get it across, I hope this book will do it. It ought to." — Thomas Schelling, Distinguished University Professor, School of Public Policy, University of Maryland, and 2005 Nobel Prize Laureate in Economics " With humor, insight, piercing logic and a nod to history, Ziliak and McCloskey show how economists— and other scientists— suffer from a mass delusion about statistical analysis. The quest for statistical significance that pervades science today is a deeply flawed substitute for thoughtful analysis. . . . Yet few participants in the scientific bureaucracy have been willing to admit what Ziliak and McCloskey make clear: the emperor has no clothes." — Kenneth Rothman, Professor of Epidemiology, Boston University School of Health The Cult of Statistical Significance shows, field by field, how " statistical significance," a technique that dominates many sciences, has been a huge mistake. The authors find that researchers in a broad spectrum of fields, from agronomy to zoology, employ " testing" that doesn' t test and " estimating" that doesn' t estimate. The facts will startle the outside reader: how could a group of brilliant scientists wander so far from scientific magnitudes? This study will encourage scientists who want to know how to get the statistical

sciences back on track and fulfill their quantitative promise. The book shows for the first time how wide the disaster is, and how bad for science, and it traces the problem to its historical, sociological, and philosophical roots. Stephen T. Ziliak is the author or editor of many articles and two books. He currently lives in Chicago, where he is Professor of Economics at Roosevelt University. Deirdre N. McCloskey, Distinguished Professor of Economics, History, English, and Communication at the University of Illinois at Chicago, is the author of twenty books and three hundred scholarly articles. She has held Guggenheim and National Humanities Fellowships. She is best known for How to Be Human* Though an Economist (University of Michigan Press, 2000) and her most recent book, The Bourgeois Virtues: Ethics for an Age of Commerce (2006). We began this research with the objective of applying Bayesian methods of analysis to various aspects of economic theory. We were attracted to the Bayesian approach because it seemed the best analytic framework available for dealing with decision making under uncertainty, and the research presented in this book has only served to strengthen our belief in the appropriateness and usefulness of this methodology. More specif ically, we believe that the concept of organizational learning is funda mental to decision making under uncertainty in economics and that the Bayesian framework is the most appropriate for developing that concept. The central and unifying theme of this book is decision making under uncertainty in microeconomic theory. Our fundamental aim is to explore the ways in which firms and households make decisions and to develop models that

have a strong empirical connection. Thus, we have attempted to contribute to economic theory by formalizing models of the actual pro cess of decision making under uncertainty. Bayesian methodology pro vides the appropriate vehicle for this formalization. This open access book provides an introduction to uncertainty quantification in engineering. Starting with preliminaries on Bayesian statistics and Monte Carlo methods, followed by material on imprecise probabilities, it then focuses on reliability theory and simulation methods for complex systems. The final two chapters discuss various aspects of aerospace engineering, considering stochastic model updating from an imprecise Bayesian perspective, and uncertainty quantification for aerospace flight modelling. Written by experts in the subject, and based on lectures given at the Second Training School of the European Research and Training Network UTOPIAE (Uncertainty Treatment and Optimization in Aerospace Engineering), which took place at Durham University (United Kingdom) from 2 to 6 July 2018, the book offers an essential resource for students as well as scientists and practitioners. Never HIGHLIGHT a Book Again! Virtually all of the testable terms, concepts, persons, places, and events from the textbook are included. Cram101 Just the FACTS101 studyguides give all of the outlines, highlights, notes, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanys: 9780321500465 . Praise for the first edition: Principles of Uncertainty is a profound and mesmerising book on the foundations and principles of subjectivist or

behaviouristic Bayesian analysis. ... the book is a pleasure to read. And highly recommended for teaching as it can be used at many different levels. ... A must-read for sure! —Christian Robert, CHANCE It's a lovely book, one that I hope will be widely adopted as a course textbook. —Michael Jordan, University of California, Berkeley, USA Like the prize-winning first edition, Principles of Uncertainty, Second Edition is an accessible, comprehensive text on the theory of Bayesian Statistics written in an appealing, inviting style, and packed with interesting examples. It presents an introduction to the subjective Bayesian approach which has played a pivotal role in game theory, economics, and the recent boom in Markov Chain Monte Carlo methods. This new edition has been updated throughout and features new material on Nonparametric Bayesian Methods, the Dirichlet distribution, a simple proof of the central limit theorem, and new problems. Key Features: First edition won the 2011 DeGroot Prize Well-written introduction to theory of Bayesian statistics Each of the introductory chapters begins by introducing one new concept or assumption Uses "just-in-time mathematics"—the introduction to mathematical ideas just before they are applied The ease with which we can choose a typeface today is something we take for granted, but it is possible only because of the tremendous amount of labor of the Bentons. Suitable for self study Use real examples and real data sets that will be familiar to the audience Introduction to the bootstrap is included – this is a modern method missing in many other books The revision of this well-respected text presents a balance of the classical and Bayesian methods. The theoretical and

practical sides of both probability and statistics are considered. New content areas include the Vorel-Kolmogorov Paradox, Confidence Bands for the Regression Line, the Correction for Continuity, and the Delta Method. Developed from celebrated Harvard statistics lectures, Introduction to Probability provides essential language and tools for understanding statistics, randomness, and uncertainty. The book explores a wide variety of applications and examples, ranging from coincidences and paradoxes to Google PageRank and Markov chain Monte Carlo (MCMC). Additional application areas explored include genetics, medicine, computer science, and information theory. The authors present the material in an accessible style and motivate concepts using real-world examples. Throughout, they use stories to uncover connections between the fundamental distributions in statistics and conditioning to reduce complicated problems to manageable pieces. The book includes many intuitive explanations, diagrams, and practice problems. Each chapter ends with a section showing how to perform relevant simulations and calculations in R, a free statistical software environment. The second edition adds many new examples, exercises, and explanations, to deepen understanding of the ideas, clarify subtle concepts, and respond to feedback from many students and readers. New supplementary online resources have been developed, including animations and interactive visualizations, and the book has been updated to dovetail with these resources. Supplementary material is available on Joseph Blitzstein’s website www. stat110.net.

The supplements include: Solutions to selected exercises Additional practice problems Handouts including review material and sample exams Animations and interactive visualizations created in connection with the edX online version of Stat 110. Links to lecture videos available on ITunes U and YouTube There is also a complete instructor's solutions manual available to instructors who require the book for a course. This thoroughly updated second edition combines the latest software applications with the benefits of modern resampling techniques

Resampling helps students understand the meaning of sampling distributions, sampling variability, P-values, hypothesis tests, and confidence intervals. The second edition of Mathematical Statistics with Resampling and R combines modern resampling techniques and mathematical statistics. This book has been classroom-tested to ensure an accessible presentation, uses the powerful and flexible computer language R for data analysis and explores the benefits of modern resampling techniques. This

book offers an introduction to permutation tests and bootstrap methods that can serve to motivate classical inference methods. The book strikes a balance between theory, computing, and applications, and the new edition explores additional topics including consulting, paired t test, ANOVA and Google Interview Questions. Throughout the book, new and updated case studies are included representing a diverse range of subjects such as flight delays, birth weights of babies, and telephone company repair times. These illustrate the relevance of the real-world

applications of the material. This new edition: • Puts the focus on statistical consulting that emphasizes giving a client an understanding of data and goes beyond typical expectations • Presents new material on topics such as the paired t test, Fisher's Exact Test and the EM algorithm • Offers a new section on "Google Interview Questions" that illustrates statistical thinking • Provides a new chapter on ANOVA • Contains more exercises and updated case studies, data sets, and R code Written for undergraduate students in a mathematical statistics course as well as practitioners and researchers, the second edition of Mathematical Statistics with Resampling and R presents a revised and updated guide for applying the most current resampling techniques to mathematical statistics. The standard rules of probability can be interpreted as uniquely valid principles in logic. In this book, E. T. Jaynes dispels the imaginary distinction between 'probability theory' and 'statistical inference', leaving a logical unity and simplicity, which provides greater technical power and flexibility in applications. This book goes beyond the conventional mathematics of probability theory, viewing the subject in a wider context. New results are discussed, along with applications of probability theory to a wide variety of problems in physics, mathematics, economics, chemistry and biology. It contains many exercises and problems, and is suitable for use as a textbook on graduate level courses involving data analysis. The material is aimed at readers who are already familiar with applied mathematics at an advanced undergraduate level or higher. The book will be of interest to scientists working in any area where inference from

incomplete information is necessary. WILEY-INTERSCIENCE PAPERBACK SERIES The Wiley-Interscience Paperback Series consists ofselected books that have been made more accessible to consumers inan effort to increase global appeal and general circulation. Withthese new unabridged softcover volumes, Wiley hopes to extend thelives of these works by making them available to future generationsof statisticians, mathematicians, and scientists. "Exploring Data Tables, Trends, and Shapes (EDTTS) waswritten as a companion volume to the same editors' book,Understanding Robust and Exploratory Data Analysis (UREDA). WhereasUREDA is a collection of exploratory and resistant methods ofestimation and display, EDTTS goes a step further, describingmultivariate and more complicated techniques . . . I feel that theauthors have made a very significant contribution in the area ofmultivariate nonparametric methods. This book [is] a valuablesource of reference to researchers in the area." —Technometrics "This edited volume . . . provides an important theoretical andphilosophical extension to the currently popular statistical areaof Exploratory Data Analysis, which seeks to reveal structure, orsimple descriptions, in data . . . It is . . . an importantreference volume which any statistical library should considerseriously." —The Statistician This newly available and affordably priced paperback version ofExploring Data Tables, Trends, and Shapes presents majoradvances in exploratory data analysis and robust regression methodsand explains the techniques, relating them to classical methods.The book addresses the role of exploratory and robust techniques inthe overall data-

analytic enterprise, and it also presents newmethods such as fitting by organized comparisons using the squarecombining table and identifying extreme cells in a sizablecontingency table with probabilistic and exploratory approaches.The book features a chapter on using robust regression in lesstechnical language than available elsewhere. Conceptual support foreach technique is also provided. The Valencia International Meetings on Bayesian Statistics, held every four years, provide the forum for researchers to come together to present and discuss frontier developments in the field. The resulting Proceedings provide a definitive, up-to-date overview encompassing a wide range of theoretical and applied research. This fourth Proceedings is no exception. In particular, it reflects a growing emphasis on computational issues, concerned with making Bayesian methods routinely available to applied practitoners, both statisticians and specialists in other subject-matter, whose work depends on careful quantification of uncertainties. This book contains 30 invited papers by leading authorities, and 33 refereed contributed papers, selected from over 150 presented. Introduction: Deciding Whether to be an Expert Witness 6. Part 1. What's it like to be an Expert Witness? 9. Introduction. A: Pioneers. 1. Damned Liars and Expert Witnesses Paul Meier. 2. Statisticians, Econometricians, and Adversary Proceedings Franklin M. Fisher. B A Very Brief Introduction to U.S. Law, and to the Role of Expert Witnesses. C Qualifications and Responsibilities of the Expert Witness 33. 1. Epidemiologic Evidence in the Silicone Breast Implant Cases

Michael O. Finkelstein and Bruce Levin. 2. Frye v. United States. 3. Daubert v. Merrell Dow Pharmaceuticals. 4. Kumho Tire Co. v. The Foundations of Positive and Normative Economics: A Handbook is the first book in a new series by Andrew Caplin and Andrew Schotter. There is currently no guide available on the rapidly changing methodological frontiers of the field of economics. Economists have been introducing new theories and new sources of data at a remarkable rate in recent years, and there are widely divergent views both on how productive these expansions have been in the past, and how best to make progress in the future. The speed of these changes has left economists ill at ease, and has created a backlash against new methods. The series will debate these critical issues, allowing proponents of a particular research method to present proposals in a safe yet critical context, with alternatives being clarified. This first volume, written by some of the most prominent researchers in the discipline, reflects the challenges that are opened by new research opportunities. The goal of the current volume and the series it presages, is to formally open a dialog on methodology. The editors' conviction is that such a debate will rebound to the benefit of social science in general, and economics in particular. The issues under discussion strike to the very heart of the social scientific enterprise. This work is of tremendous importance to all who are interested in the contributions that academic research can make not only to our scientific understanding, but also to matters of policy. * End-of-chapter summaries reinforce the main topics and goals of the chapter. There has been dramatic growth in the development and

application of Bayesian inference in statistics. Berger (2000) documents the increase in Bayesian activity by the number of published research articles, the number of books,andtheextensivenumberofapplicationsofBayesianarticlesinapplied disciplines such as science and engineering. One reason for the dramatic growth in Bayesian modeling is the availab- ity of computational algorithms to compute the range of integrals that are necessary in a Bayesian posterior analysis. Due to the speed of modern c- puters, it is now possible to use the Bayesian paradigm to ?t very complex models that cannot be ?t by alternative frequentist methods. To ?t Bayesian models, one needs a statistical computing environment. This environment should be such that one can: write short scripts to de?ne a Bayesian model use or write functions to summarize a posterior distribution use functions to simulate from the posterior distribution construct graphs to illustrate the posterior inference An environment that meets these requirements is the R system. R provides a wide range of functions for data manipulation, calculation, and graphical d- plays. Moreover, it includes a well-developed, simple programming language that users can extend by adding new functions. Many such extensions of the language in the form of packages are easily downloadable from the Comp- hensive R Archive Network (CRAN).