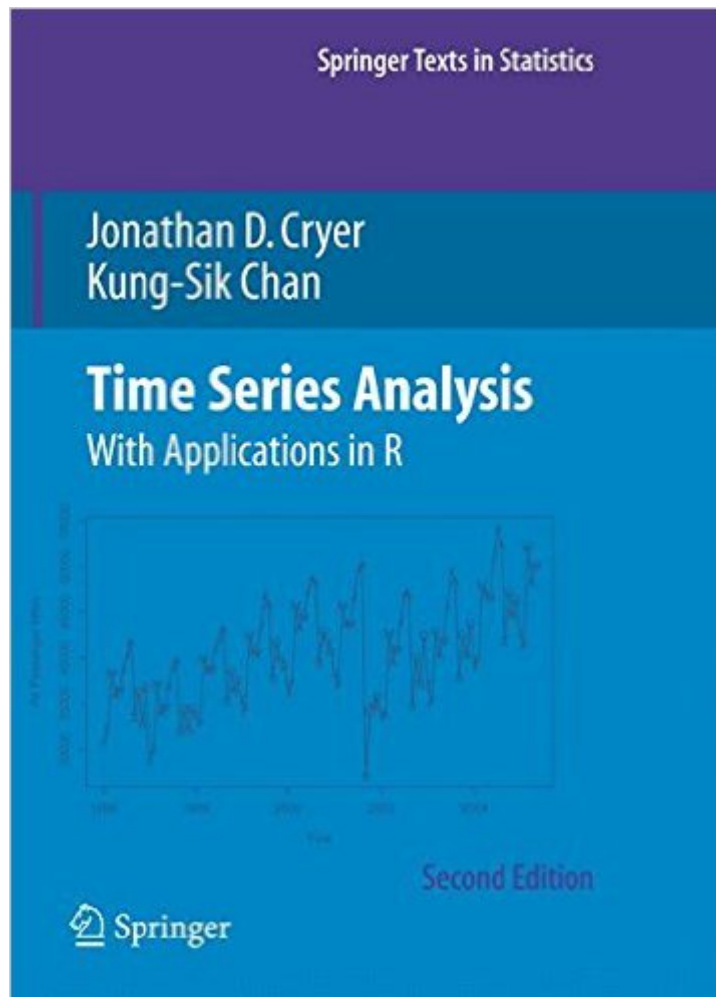# Time Series Analysis: With Applications In R (Springer Texts In Statistics)

Synopsis

This book has been developed for a one-semester course usually attended by students in statistics, economics, business, engineering, and quantitative social sciences. A unique feature of this edition is its integration with the R computing environment. Basic applied statistics is assumed through multiple regression. Calculus is assumed only to the extent of minimizing sums of squares but a calculus-based introduction to statistics is necessary for a thorough understanding of some of the theory. Actual time series data drawn from various disciplines are used throughout the book to illustrate the methodology.

Book Information

Hardcover: 491 pages

Publisher: Springer; 2nd edition (November 17, 2010)

Language: English

ISBN-10: 0387759581

ISBN-13: 978-0387759586

Product Dimensions: 7 x 1.1 x 10 inches

Shipping Weight: 2.4 pounds (View shipping rates and policies)

Average Customer Review: 3.9 out of 5 stars See all reviews (20 customer reviews)

Best Sellers Rank: #198,381 in Books (See Top 100 in Books)   #31 in Books > Business & Money > Insurance > Business   #79 in Books > Medical Books > Basic Sciences > Biostatistics   #578 in Books > Textbooks > Science & Mathematics > Mathematics > Statistics

Customer Reviews

Jonathan Cryer wrote a very nice introductory text on time series analysis in 1986. The book emphasized the time domain approach and particularly the Box-Jenkins approach. There have been many advances in time series analysis over the 22 years that have past since the publication of that book. In this up-to-date edition K.-S. Chan has joined as coauthor. The book now includes such topics as threshold models, time series regression models and outlier detection in time series. Also included for the first time in this edition are the heteroscadastic models including the ARCH and GARCH models. There is also good coverage of frequency domain analysis. An appendix of R commands to do the analyses in the various chapters is also a nice new feature of this edition.

Great book. Companion R package TSA is not just another TS Analysis package, but provides excellent additional capabilities, compared to the usual stuff on R. The authors have created a book

that's great for self-study or for a graduate course. 5 stars.

Very well written, easy to understand. But it is a basic/elementary textbook. If I were learning time series on my own and wanted to use the R language, I would read this book first.

I like this book a lot.It presents the material very clearly as they didn't skip what others call "Easy stuff". Excellent starter for TSA. Actaully, I was amazed how nowadays we can find books simplify things to a real undergraduate level. It is great for self-study.

This book makes heavy use of mathematical proofs in the early chapters to make make its points. This may suit some readers and not suit others. The early chapters describe the core principles.If you're a person who likes narrative descriptions rather than mathematical proofs, then this book probably isn't for you. If you're a person who doesn't mind mathematical proofs as long as there's a lot of hand-holding explanations of the proofs, then this book is probably not for you, either.If you're okay with mathematical proofs, then this book is probably okay for you.

If you're more of an R user than a statistician then this book might be a good introduction for you. If you're more of a statistician who uses R, I recommend Time Series Analysis by Wei or Time Series: Theory and Methods by Brockwell and Davis.From a graduate level stats background, the book is too expensive and too light on theory to be a reference guide. However, if you're trying to self teach, it may be a nice introduction before you step into the books mentioned above.It may be more suitable for senior level undergraduate students in the fields of math/statistics. If you're coming from a weaker math/stats background, it may not be too intimidating, however, you may need to Google a couple of topics.

I used this in a graduate level course and found the structure of the subjects useful and the addition of R syntax marginally synthetic, particularly in appendices. However, many of the topics covered in chapter exercises include tasks in following chapters; this is NOT useful! Additionally, some of the syntax used in Exhibits are inconclusive and only marginally helpful e.g. incomplete script [clearly a editorial oversight]. When prescribing to this text be prepared to use Cran's R directories references for assistance; R proficiency dependent. This is a sound text likely as supplemental material but not exclusively.

When I was a graduate student in statistics and was faced with a consulting problem involving time series data, one of my professors lent me this book to use as a reference. I must say this is one of the best applied statistics books I have read. The authors explain the concepts well, illustrate the ideas with many different examples, and provide R code so that all results (point estimates and plots) can be recreated. If you are an R user, all the data sets are within their TSA R package. I am not an expert on time series analysis, but when I am faced with time series data, this is the first book I turn to. I just wish all stats. textbooks were written this well.

Time Series Analysis: With Applications in R (Springer Texts in Statistics) Statistics and Data Analysis for Financial Engineering: with R examples (Springer Texts in Statistics) Time Series Analysis (Springer Texts in Statistics) An Introduction to Statistical Learning: with Applications in R (Springer Texts in Statistics) Regression Modeling Strategies: With Applications to Linear Models, Logistic Regression, and Survival Analysis (Springer Series in Statistics) Essentials of Stochastic Processes (Springer Texts in Statistics) A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) A Modern Approach to Regression with R (Springer Texts in Statistics) Time Series: Theory and Methods (Springer Series in Statistics) The Elements of Statistical Learning: Data Mining, Inference, and Prediction, Second Edition (Springer Series in Statistics) Analysis of Financial Time Series (Wiley Series in Probability and Statistics) The Mathematics of Medical Imaging: A Beginner's Guide (Springer Undergraduate Texts in Mathematics and Technology) Turbo Codes: Principles and Applications (The Springer International Series in Engineering and Computer Science) Iterative Detection: Adaptivity, Complexity Reduction, and Applications (The Springer International Series in Engineering and Computer Science) Sigma Delta Modulators: Nonlinear Decoding Algorithms and Stability Analysis (The Springer International Series in Engineering and Computer Science) Discovering Statistics Using IBM SPSS Statistics, 4th Edition Even You Can Learn Statistics and Analytics: An Easy to Understand Guide to Statistics and Analytics (3rd Edition) Introductory Statistics with R (Statistics and Computing) Differential Evolution: In Search of Solutions (Springer Optimization and Its Applications) Analytics: Data Science, Data Analysis and Predictive Analytics for Business (Algorithms, Business Intelligence, Statistical Analysis, Decision Analysis, Business Analytics, Data Mining, Big Data)