A First Course in Bayesian Statistical Methods (Springer Texts in Statistics)

By Peter D. Hoff

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics)
By Peter D. Hoff

1. A self-contained introduction to probability, exchangeability and Bayes' rule provides a theoretical understanding of the applied material.
2. Numerous examples with R-code that can be run "as-is" allow the reader to perform the data analyses themselves.
3. The development of Monte Carlo and Markov chain Monte Carlo methods in the context of data analysis examples provides motivation for these computational methods.

⬇ Download A First Course in Bayesian Statistical Methods (Sp ...pdf

🗎 Read Online A First Course in Bayesian Statistical Methods (...pdf

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics)

By Peter D. Hoff

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff

1. A self-contained introduction to probability, exchangeability and Bayes' rule provides a theoretical understanding of the applied material.
2. Numerous examples with R-code that can be run "as-is" allow the reader to perform the data analyses themselves.
3. The development of Monte Carlo and Markov chain Monte Carlo methods in the context of data analysis examples provides motivation for these computational methods.

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff Bibliography

- Sales Rank: #1208514 in Books
- Published on: 2010-11-09
- Original language: English
- Number of items: 1
- Dimensions: 9.25" h x .64" w x 6.10" l, .88 pounds
- Binding: Paperback
- 271 pages

 Download A First Course in Bayesian Statistical Methods (Sp ...pdf

 Read Online A First Course in Bayesian Statistical Methods (...pdf

Download and Read Free Online A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff

Editorial Review

Review

From the reviews:

This is an excellent book for its intended audience: statisticians who wish to learn Bayesian methods. Although designed for a statistics audience, it would also be a good book for econometricians who have been trained in frequentist methods, but wish to learn Bayes. In relatively few pages, it takes the reader through a vast amount of material, beginning with deep issues in statistical methodology such as de Finetti's theorem, through the nitty-gritty of Bayesian computation to sophisticated models such as generalized linear mixed effects models and copulas. And it does so in a simple manner, always drawing parallels and contrasts between Bayesian and frequentist methods, so as to allow the reader to see the similarities and differences with clarity. (Econometrics Journal) "Generally, I think this is an excellent choice for a text for a one-semester Bayesian Course. It provides a good overview of the basic tenets of Bayesian thinking for the common one and two parameter distributions and gives introductions to Bayesian regression, multivariate-response modeling, hierarchical modeling, and mixed effects models. The book includes an ample collection of exercises for all the chapters. A strength of the book is its good discussion of Gibbs sampling and Metropolis-Hastings algorithms. The author goes beyond a description of the MCMC algorithms, but also provides insight into why the algorithms work. …I believe this text would be an excellent choice for my Bayesian class since it seems to cover a good number of introductory topics and giv the student a good introduction to the modern computational tools for Bayesian inference with illustrations using R. (Journal of the American Statistical Association, June 2010, Vol. 105, No. 490)

"Statisticians and applied scientists. The book is accessible to readers having a basic familiarity with probability theory and grounding statistical methods. The author has succeeded in writing an acceptable introduction to the theory and application of Bayesian statistical methods which is modern and covers both the theory and practice. … this book can be useful as a quick introduction to Bayesian methods for self study. In addition, I highly recommend this book as a text for a course for Bayesian statistics." (Lasse Koskinen, International Statistical Review, Vol. 78 (1), 2010)

"The book under review covers a balanced choice of topics … presented with a focus on the interplay between Bayesian thinking and the underlying mathematical concepts. … the book by Peter D. Hoff appears to be an excellent choice for a main reading in an introductory course. After studying this text the student can go in a direction of his liking at the graduate level." (Krzysztof ?atuszy?ski, Mathematical Reviews, Issue 2011 m)

"The book is a good introductory treatment of methods of Bayes analysis. It should especially appeal to the reader who has had some statistical courses in estimation and modeling, and wants to understand the Bayesian interpretation of those methods. Also, readers who are primarily interested in modeling data and who are working in areas outside of statistics should find this to be a good reference book. … should appeal to the reader who wants to keep with modern approaches to data analysis." (Richard P. Heydorn, Technometrics, Vol. 54 (1), February, 2012)

From the Back Cover

This book provides a compact self-contained introduction to the theory and application of Bayesian statistical methods. The book is accessible to readers having a basic familiarity with probability, yet allows more advanced readers to quickly grasp the principles underlying Bayesian theory and methods. The examples and computer code allow the reader to understand and implement basic Bayesian data analyses using standard statistical models and to extend the standard models to specialized data analysis situations. The book begins with fundamental notions such as probability, exchangeability and Bayes' rule, and ends with modern topics such as variable selection in regression, generalized linear mixed effects models, and semiparametric copula estimation. Numerous examples from the social, biological and physical sciences show how to implement these methodologies in practice.

Monte Carlo summaries of posterior distributions play an important role in Bayesian data analysis. The open-source R statistical computing environment provides sufficient functionality to make Monte Carlo estimation very easy for a large number of statistical models and example R-code is provided throughout the text. Much of the example code can be run ``as is'' in R, and essentially all of it can be run after downloading the relevant datasets from the companion website for this book.

Peter Hoff is an Associate Professor of Statistics and Biostatistics at the University of Washington. He has developed a variety of Bayesian methods for multivariate data, including covariance and copula estimation, cluster analysis, mixture modeling and social network analysis. He is on the editorial board of the *Annals of Applied Statistics*.

Users Review

From reader reviews:

Ellen Farnsworth:

Spent a free time for you to be fun activity to perform! A lot of people spent their spare time with their family, or their friends. Usually they undertaking activity like watching television, about to beach, or picnic inside the park. They actually doing same every week. Do you feel it? Do you need to something different to fill your personal free time/ holiday? Might be reading a book can be option to fill your free of charge time/ holiday. The first thing that you ask may be what kinds of publication that you should read. If you want to test look for book, may be the publication untitled A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) can be good book to read. May be it can be best activity to you.

Alfred Cox:

Are you kind of stressful person, only have 10 or maybe 15 minute in your time to upgrading your mind proficiency or thinking skill perhaps analytical thinking? Then you are receiving problem with the book in comparison with can satisfy your short time to read it because all this time you only find book that need more time to be examine. A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) can be your answer because it can be read by an individual who have those short free time problems.

Otto Tejeda:

Is it you actually who having spare time in that case spend it whole day by watching television programs or

just lying down on the bed? Do you need something new? This A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) can be the answer, oh how comes? The new book you know. You are thus out of date, spending your free time by reading in this fresh era is common not a nerd activity. So what these guides have than the others?

Elois Montgomery:

As we know that book is very important thing to add our understanding for everything. By a reserve we can know everything we really wish for. A book is a set of written, printed, illustrated or even blank sheet. Every year had been exactly added. This book A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) was filled with regards to science. Spend your time to add your knowledge about your scientific research competence. Some people has several feel when they reading some sort of book. If you know how big good thing about a book, you can truly feel enjoy to read a reserve. In the modern era like at this point, many ways to get book that you simply wanted.

Download and Read Online A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff #T2MJ719ALDV

Read A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff for online ebook

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff books to read online.

Online A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff ebook PDF download

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff Doc

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff Mobipocket

A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff EPub

T2MJ719ALDV: A First Course in Bayesian Statistical Methods (Springer Texts in Statistics) By Peter D. Hoff