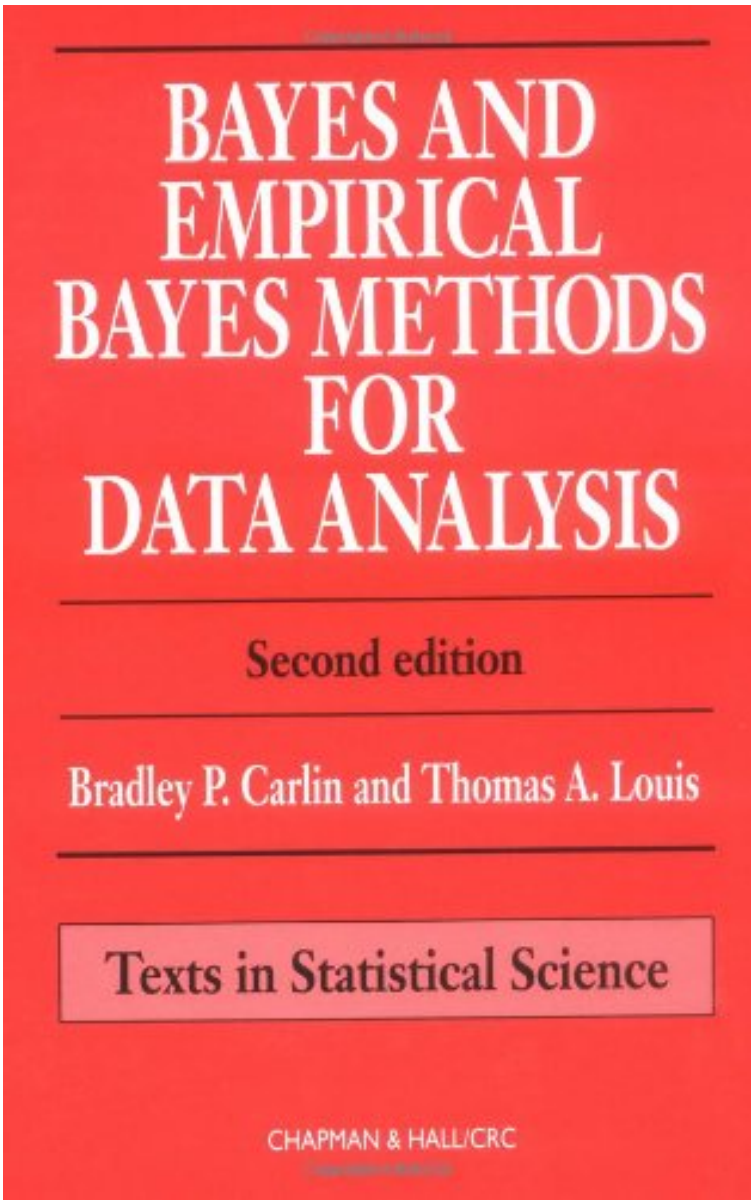
Bayes and Empirical Bayes Methods for Data Analysis, Second Edition

Bradley P. Carlin, Thomas A. Louis, Bradley Carlin
*ebooks | Download PDF | *ePub | DOC | audiobook*



#1375399 in Books Chapman and Hall/CRC 2000-06-22Original language:EnglishPDF # 1 1.12 x 6.41 x 9.51l, #File Name: 1584881704440 pages | File size: 40.Mb

Bradley P. Carlin, Thomas A. Louis, Bradley Carlin : Bayes and Empirical Bayes Methods for Data Analysis, Second Edition before purchasing it in order to gage whether or not it would be worth my time, and all praised Bayes and Empirical Bayes Methods for Data Analysis, Second Edition:

26 of 27 people found the following review helpful. a must if you use Bayesian methodsBy Michael R. ChernickBayesian Statistics is being use more and more these days because the amazing advances in computational speed allow the use of computer-intensive methods to calculate Bayesian posterior distributions using more realistic prior distribution.The first edition of this book was a well-written primer on Bayesian methods and the more "objective" empirical Bayes methods. The second edition adds much more on Gibbs sampling and algorithms such as Metropolis-Hastings that enable statisticians to produce realistic Bayesian results using the Markov Chain Monte Carlo techniques. Although some instructors do not sind it to be the best text for a course on Bayesian methods, it is a valuable reference yexy for statisticians and is well-suited for a graduate level text.For a first course that includes in greater detail examples and applications I would prefer Jeff Gill's book which although written for the audience of social scientists, it can be used in other disciplines as well.29 of 30 people found the following review helpful. An good overview of the corps of the matterBy Jos A. Snchez VillanuevaThis book features a deep and focused lesson on Bayes and Empirical Bayes Methods. It goes through the key topics as conjugate priors, MCMC methods (non iteratives and iteratives as the well known Gibbs samplining and metropolitis hastings algorithms), model selection methods (as bayes factor) and issues related as model robusteness.The Approach is increasingly formal and deeply complex, allowing for getting the basics or diving into more complex knowledge according to your former background. You need at least a good understanding of Frequentist statistic to be able to follow the reasonings. Each chapter allow you to stop at some point without losing the thread. Last part of the book is in fact deep knowledge demanding.The most interesting point of this book according to my very limited statistics background is that it makes good comparations with the frequentist approach (classical approaches as confidence intervals and point estimators), checking performance of either method. Even, it features some combination of both approaches getting some bayessian intervals.As a negative point, I would say that examples are hard to follow for someone with limited bakground and too much complex. They really do not clear me up enough.All in all, is a very profitable book for jumping into bayesian methods.4 of 4 people found the following review helpful. More like a handbookBy Scott C. NelsonWe used this book for our intro to Bayesian statistics class at SDSU. I thought it was more like a technical manual for how to do Bayesian statistics, rather than a good introductory textbook. Recommended for researchers who want to know the nitty-gritty of MCMC and the like. Not a good textbook for a first course in Bayesian statistics. To understand what was going on in class I used Lancaster, "An Introduction to Bayesian Econometrics". Much better intuitive explanation of what is going on.

In recent years, Bayes and empirical Bayes (EB) methods have continued to increase in popularity and impact. Building on the first edition of their popular text, Carlin and Louis introduce these methods, demonstrate their usefulness in challenging applied settings, and show how they can be implemented using modern Markov chain Monte Carlo (MCMC) methods. Their presentation is accessible to those new to Bayes and empirical Bayes methods, while providing in-depth coverage valuable to seasoned practitioners.With its broad appeal as a text for those in biomedical science, education, social science, agriculture, and engineering, this second edition offers a relatively gentle and comprehensive introduction for students and practitioners already familiar with more traditional frequentist statistical methods. Focusing on practical tools for data analysis, the book shows how properly structured Bayes and EB procedures typically have good frequentist and Bayesian performance, both in theory and in practice.

About the Second Edition:The writing is excellent and the worked examples are also excellent for understanding the methods. In summary, I recommend Bayes and Empirical Bayes Methods for Data Analysis for advanced graduate students and all research workers.-Olaf Berke in Computational Statistics Data Analysis, January 2001...particularly commends the book to practising biometricians who want to explore the potential for using Bayesian methods in their own work.-Biometrics, Vol. 57, No. 3, September 2001...the book is beautifully written and many of the questions it raises - and most of the answers provided - are of concern for the applied statistician whether Bayesian, frequentist or likelihoodist.-Guadalupe Gomez, Statistics in Medicine Vol 21, #23 Dec 15 2002.About the First Edition:...an important and timely addition to applied statisticsthe writing is excellent, and the authors are able to present an amazing amount of material cogently in [a] smaller bookthe reader reaps the benefits of being in the hands of a true master-Journal of American Statistical Associationan excellent exposition of Bayes and empirical Bayes methodsgives a well-balanced mathematical and computational treatment of Bayes and empirical Bayes paradigms, and nicely examines the similarities and contrasts in the two approaches.-Short Book s of the ISIand impressive compendium of the mathematical techniques underlying Bayes and empirical Bayes methods-American Journal of Epidemiology