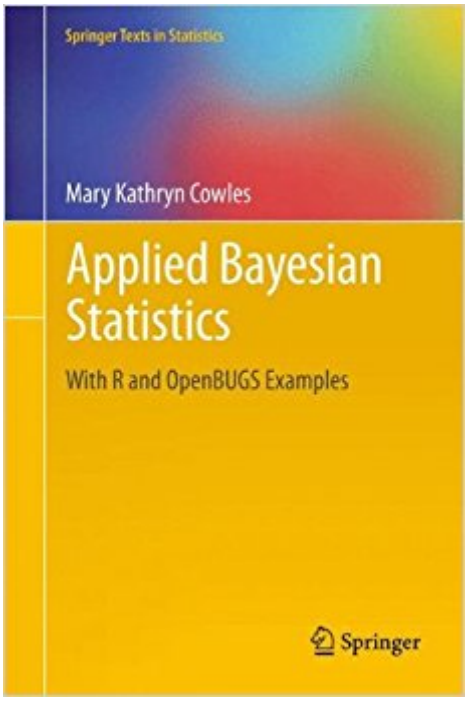
Applied Bayesian Statistics: With R And OpenBUGS Examples (Springer Texts In Statistics)



Synopsis

This book is based on over a dozen years teaching a Bayesian Statistics course. The material presented here has been used by students of different levels and disciplines, including advanced undergraduates studying Mathematics and Statistics and students in graduate programsÃ Â in Statistics, Biostatistics, Engineering, Economics, Marketing, Pharmacy, and Psychology. The goal of the book is to impart the basics of designing and carrying out Bayesian analyses, and interpreting and communicating the results.Ã Â In addition, readers will learn to use the predominant software for Bayesian model-fitting, R and OpenBUGS. The practical approach this book takes will help students of all levels to build understanding of the concepts and procedures required to answer real questions by performing Bayesian analysis of real data. Topics covered include comparing and contrasting Bayesian and classical methods, specifying hierarchical models, and assessing Markov chain Monte Carlo output. Ã Â Kate Cowles taught Suzuki piano for many years before going to graduate school in Biostatistics.Ã Â Her research areas are Bayesian and computational statistics, with application to environmental science.Ã Â She is on the faculty of Statistics at The University of Iowa.

Book Information

Series: Springer Texts in Statistics (Book 98)

Hardcover: 232 pages

Publisher: Springer; 2013 edition (January 3, 2013)

Language: English

ISBN-10: 1461456959

ISBN-13: 978-1461456957

Product Dimensions: 6.2 x 0.7 x 9.2 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: 2.6 out of 5 stars 3 customer reviews

Best Sellers Rank: #271,861 in Books (See Top 100 in Books) #14 inÃ Â Books > Science & Math > Chemistry > Crystallography #1000 inÃ Â Books > Textbooks > Science & Mathematics > Mathematics > Statistics #1393 inÃ Â Books > Science & Math > Mathematics > Applied > Probability & Statistics

Customer Reviews

From the book reviews:Ã¢â ¬Å“Tise textbook is based on the authorÃ¢â ¬â„¢s course Ã¢â ¬ËœBayesian statisticsÃ¢â ¬â„¢ and thus it is organised in an incremental manner that, using

a variety of practical examples, guides the readers, students and researchers, through the concepts and methodologies required to perform Bayesian analysis. Ã¢â ¬Â¦ Each chapter contains examples that underline the important theoretical concepts that are presented and concludes with a selection of problems and exercises. Ã¢â ¬Â¦ this book is equally valuable to researchers and lecturers who wish to know more about Bayesian inference.Ã¢â ¬Â• (Irina Ioana Mohorianu, zbMATH, Vol. 1276, 2014)Ã¢â ¬Å“This book Ã¢â ¬Â¦ provides a gentle introduction to both the theory and the Ã¢â ¬Ëœnuts and boltsÃ¢â ¬â„¢ of Bayesian analysis. Ã¢â ¬Â¦ For those (students in particular) who are looking for a friendly introduction to what is becoming a more popular statistical approach in many areas of science, Applied Bayesian Statistics: With R and OpenBUGS Examples is a very appropriate starting point, one that will give the reader enough understanding and experience to move on to more advanced treatments Ã¢â ¬Â¦.Ã¢â ¬Â• (Nicole Lazar, Technometrics, Vol. 55 (4), November, 2013)

This book is based on over a dozen years teaching a Bayesian Statistics course. The material presented here has been used by students of different levels and disciplines, including advanced undergraduates studying Mathematics and Statistics and students in graduate programsÃ Â in Statistics, Biostatistics, Engineering, Economics, Marketing, Pharmacy, and Psychology. The goal of the book is to impart the basics of designing and carrying out Bayesian analyses, and interpreting and communicating the results.Ã Â In addition, readers will learn to use the predominant software for Bayesian model-fitting, R and OpenBUGS. The practical approach this book takes will help students of all levels to build understanding of the concepts and procedures required to answer real questions by performing Bayesian analysis of real data. Topics covered include comparing and contrasting Bayesian and classical methods, specifying hierarchical models, and assessing Markov chain Monte Carlo output. Mary KathrynÃ Â (Kate) Cowles taught Suzuki piano for many years before going to graduate school in Biostatistics.Ã Â Her research areas are Bayesian and computational statistics, with application to environmental science.Ã Â She is on the faculty of Statistics at The University of Iowa.

Terse. Incomplete. Author is completely unresponsive to any requests for information.

As a theory book, it is superficial and doesn’t go into much depth but still requires a calculus base. I wasn’t really interested in a heavy theory book, so that was fine. The explanations are not the best, but not awful.As an applied book, it does give many examples, but the examples are light up till

about chapter 8 (out of 11). Chapter 9 starts to get into hierarchical bayesian modeling, but it isn't very well explained. The example the author uses is a softball example and in table 1, the data is presented incorrectly. She labels the binary 1,0 as at bats, and then n as hits. How do you get 5 hits at 1 at bat? Later in the chapter, it is flipped back to 1 being there was a hit out of 5 attempts. That makes more sense. Little errors like that make it difficult for a novice like me to follow the model, notations, and what is trying to be estimated.As a software manual, it is poorly written. R is barely talked about in chapters 1 through 7, and she uses the LearnBayes package from another book. That made me wonder why I'm using this book and not the other one. Openbugs isn't introduced till chapter 8 (out of 11), and it is a very cursory look.I gave up after the middle of chapter 9, because it wasn't giving me what I wanted. I'm not sure what that is exactly, just not a good fit for me. I did not purchase this book, but got it from the library to look it over before deciding.This isn't a horrible book, just not very clear what it is suppose to be.

"Applied Bayesian statistics" is a decent, if unremarkable, introduction to Bayesian statistics - but it is just not competitive with "Doing Bayesian data analysis" by John Kruschke, which actually costs less if you get a used copy.UPD. Second edition of "Doing Bayesian data analysis" is now out, widening the lead. "Bayesian statistics for the social sciences" by Kaplan is another better-than-this option.

Statistics) Matrix Algebra (Springer Texts in Statistics) Plane Answers to Complex Questions: The Theory of Linear Models (Springer Texts in Statistics) Books of Breathing and Related Texts -Late Egyptian Religious Texts in the British Museum Vol.1 (Catalogue of the Books of the Dead and Other Religious Texts in the British Museum)