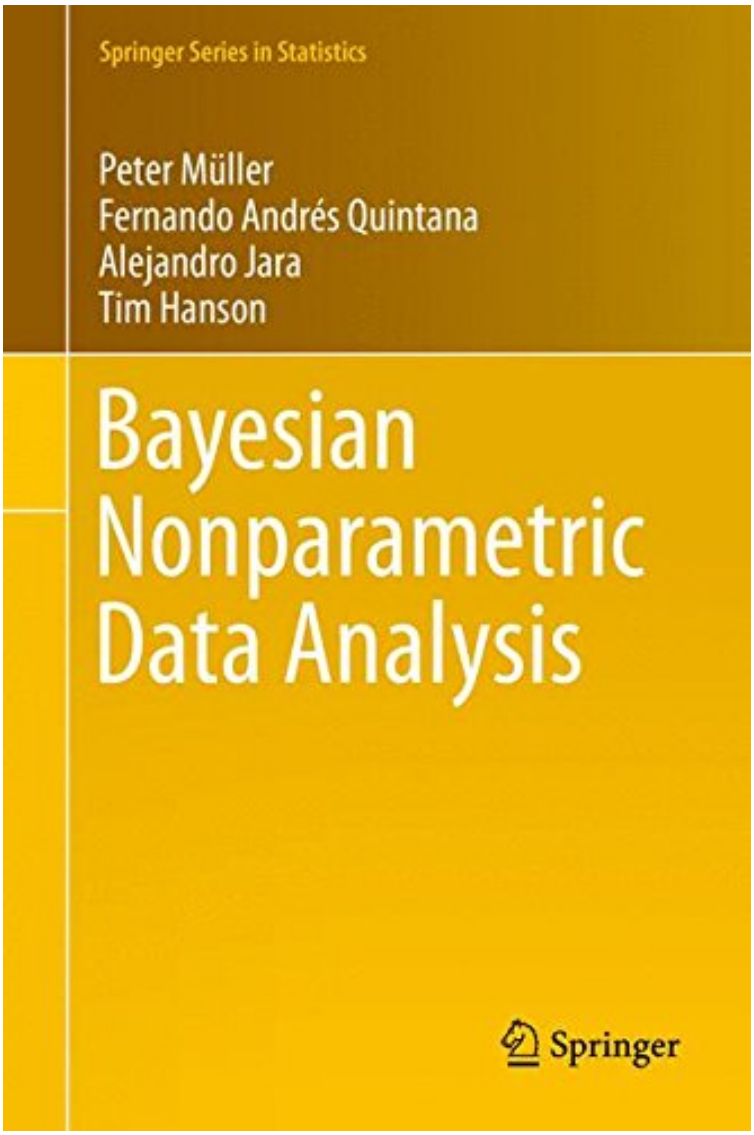
Bayesian Nonparametric Data Analysis (Springer Series in Statistics)

Peter Mller, Fernando Andres Quintana, Alejandro Jara, Tim Hanson
**Download PDF | ePub | DOC | audiobook | ebooks*



#891960 in Books 2015-06-18Original language:EnglishPDF # 1 9.21 x .50 x 6.14l, .0 #File Name: 3319189670193 pages | File size: 66.Mb

Peter Mller, Fernando Andres Quintana, Alejandro Jara, Tim Hanson : Bayesian Nonparametric Data Analysis (Springer Series in Statistics) before purchasing it in order to gage whether or not it would be worth my time, and all praised Bayesian Nonparametric Data Analysis (Springer Series in Statistics):

This book reviews nonparametric Bayesian methods and models that have proven useful in the context of data analysis. Rather than providing an encyclopedic review of probability models, the books structure follows a data analysis perspective. As such, the chapters are organized by traditional data analysis problems. In selecting specific nonparametric models, simpler and more traditional models are favored over specialized ones. The discussed methods are illustrated with a wealth of examples, including applications ranging from stylized examples to case studies from recent literature. The book also includes an extensive discussion of computational methods and details on their implementation. R code for many examples is included in online software pages.

There is much to like about the book under review. The authors present Bayesian nonparametric statistics focusing on how it is applied in data analysis. This is a book for a statistician or graduate student that has accepted the Bayesian approach and would like to know more about Bayesian approaches to nonparametric problems. (Ross S. McVinish, Mathematical s, February, 2016)The book provides a rich review of Bayesian nonparametric methods and models with a wealth of illustrations ranging from simple examples to more elaborated applications on case studies considered in recent literature. the book succeeds in the difficult task of providing a rather complete, yet coincise, overview. Overall, the nature of the book makes it a suitable reference for both practitioners and theorists. (Bernardo Nipoti, zbMATH 1333.62003, 2016)Methods are illustrated with a wealth of examples, ranging from stylised applications to case studies from recent literature. The book is a good reference for statisticians interested in Bayesian non-parametric data analysis. It is well-written and structured. Readers can find the algorithms, examples and applications easy to follow and extremely useful. This book makes a good contribution to the literature in the area of Bayesian non-parametric statistics. (Diego Andres Perez Ruiz, International Statistical , Vol. 84 (1), 2016)From the Back CoverThis book reviews nonparametric Bayesian methods and models that have proven useful in the context of data analysis. Rather than providing an encyclopedic review of probability models, the books structure follows a data analysis perspective. As such, the chapters are organized by traditional data analysis problems. In selecting specific nonparametric models, simpler and more traditional models are favored over specialized ones. The discussed methods are illustrated with a wealth of examples, including applications ranging from stylized examples to case studies from recent literature. The book also includes an extensive discussion of computational methods and details on their implementation. R code for many examples is included in on-line software pages.About the AuthorPeter Mueller is Professor in the Department of Mathematics and the Department of Statistics Data Science at the University of Texas at Austin. He has published widely on nonparametric Bayesian statistics, with an emphasis on applications in biostatistics and bioinformatics.Fernando Andrs Quintana is Professor in the Department of Statistics at Pontificia Universidad Catolica de Chile with interests in nonparametric Bayesian analysis and statistical computing. His publications include extensive work on clustering methods and applications in biostatistics.Alejandro Jara is Associate Professor in the Department of Statistics at Pontificia Universidad Catolica de Chile, with research interests in nonparametric Bayesian statistics, Markov chain Monte Carlo methods and statistical computing.He developed the R package "DPpackage," a widely used public domain set of programs for inference under nonparametric Bayesian models.Timothy Hanson is Professor of Statistics in the Department of Statistics at the University of South Carolina. His research interests include survival analysis, nonparametric regression