Molecular Data Analysis Using R

Csaba Ortutay, Zsuzsanna Ortutay
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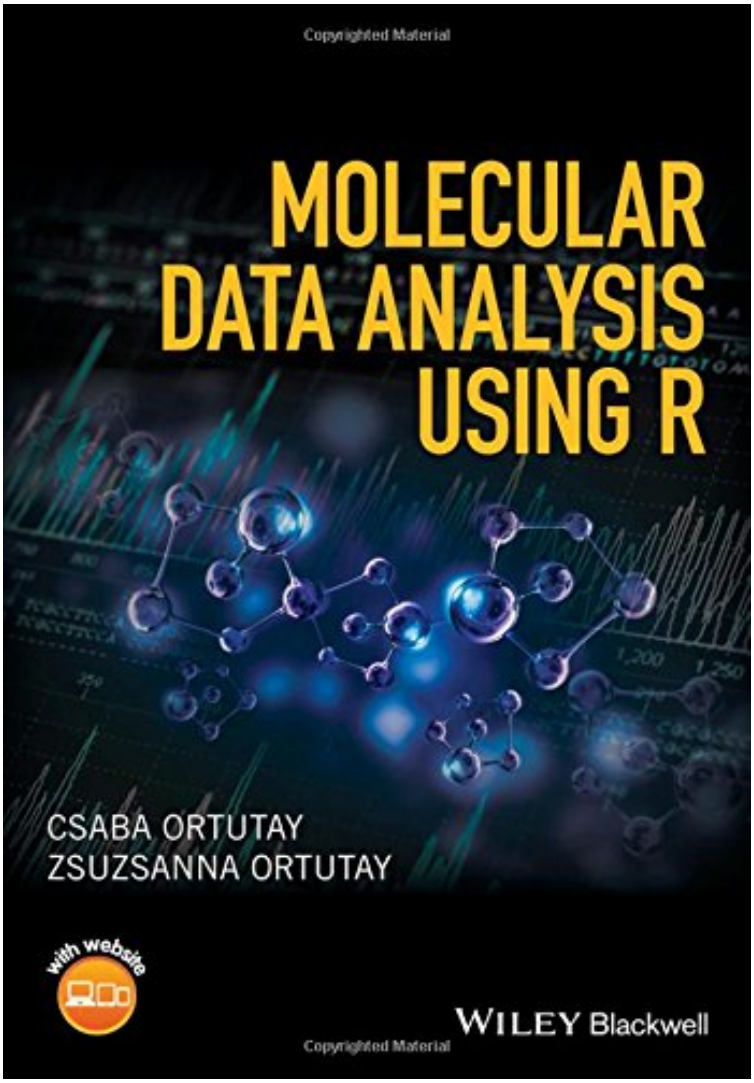

#960759 in Books 2017-02-06Original language:EnglishPDF # 1 9.50 x .60 x 6.50l, .0 #File Name: 1119165024352 pages | File size: 18.Mb

Csaba Ortutay, Zsuzsanna Ortutay : Molecular Data Analysis Using R before purchasing it in order to gage whether or not it would be worth my time, and all praised Molecular Data Analysis Using R:

0 of 0 people found the following review helpful. Lots of topics, step-by-step examples, sample data sets and scriptsBy HarleyI received this book from one of the author's to review. I have an MSc in bioinformatics and am working on a PhD in the same field.While this book focuses on R, there are many interspersed sections which give the reader some important knowledge about bioinformatics in general. All of the chapter introductions give a good background on the topic at hand, and I found many new ideas and principals which I was unfamiliar with. The chapters are not ridiculously long, about 20-25 pages each, allowing you to get in and learn some practical usage without getting

burned out.The power of R is in the extensive catalog of analytic/mathematic packages available. I admit that in the past I have steered away from R due to the unfamiliarity of the syntax and a proclivity towards reinventing the wheel each time I am faced with a new problem. However, after reading through this book I am understanding, more fully, that in the long run this is a poor approach, and with so many biological data/statistical analysis libraries available I could have saved myself a lot of time.This book is packed full of examples, and step-by-step walkthroughs, which will make it useful for everyone but especially for those of you coming from the strictly biological side of things. One problem with some R packages can be the limited amount of instructional examples given in the documentation. In this book there are many examples and the accompanying background knowledge to explain WHY the analysis is important or useful in the first place. There are example data sets for each chapter which can be downloaded from the publisher's site, so you get to work on real world data to go with the tool you are addressing.As a result of reading it, I have a larger set of tools available to me as a bioinformatician. This is particularly useful for someone, like me, embedded in a group of lab workers, where finding the right tool or type of analysis to help a colleague can be a weekly event.

This book addresses the difficulties experienced by wet lab researchers with the statistical analysis of molecular biology related data. The authors explain how to use R and Bioconductor for the analysis of experimental data in the field of molecular biology. The content is based upon two university courses for bioinformatics and experimental biology students (Biological Data Analysis with R and High-throughput Data Analysis with R). The material is divided into chapters based upon the experimental methods used in the laboratories. Key features include: Broad appeal--the authors target their material to researchers in several levels, ensuring that the basics are always covered. First book to explain how to use R and Bioconductor for the analysis of several types of experimental data in the field of molecular biology. Focuses on R and Bioconductor, which are widely used for data analysis. One great benefit of R and Bioconductor is that there is a vast user community and very active discussion in place, in addition to the practice of sharing codes. Further, R is the platform for implementing new analysis approaches, therefore novel methods are available early for R users.

From the Back CoverThis book addresses the difficulties experienced by wet lab researchers with the statistical analysis of molecular biology related data. The authors explain how to use R and Bioconductor for the analysis of experimental data in the field of molecular biology. The content is based upon two university courses for bioinformatics and experimental biology students (Biological Data Analysis with R and High-throughput Data Analysis with R). The material is divided into chapters based upon the experimental methods used in the laboratories. Key features include:Broad appeal--the authors target their material to researchers in several levels, ensuring that the basics are always covered.First book to explain how to use R and Bioconductor for the analysis of several types of experimental data in the field of molecular biology.Focuses on R and Bioconductor, which are widely used for data analysis. One great benefit of R and Bioconductor is that there is a vast user community and very active discussion in place, in addition to the practice of sharing codes. Further, R is the platform for implementing new analysis approaches, therefore novel methods are available early for R users.About the AuthorsCsaba Ortutay is a bioinformatician from Finland who has taught several bioinformatics courses at different European universities (Finland, Ireland, and Hungary) for over a decade. He is also active as a researcher publishing in the field of computational immunology. Zsuzsanna Ortutay is a molecular immunologist at the University of Tampere, Finland, frequently utilizing diverse molecular lab methods.