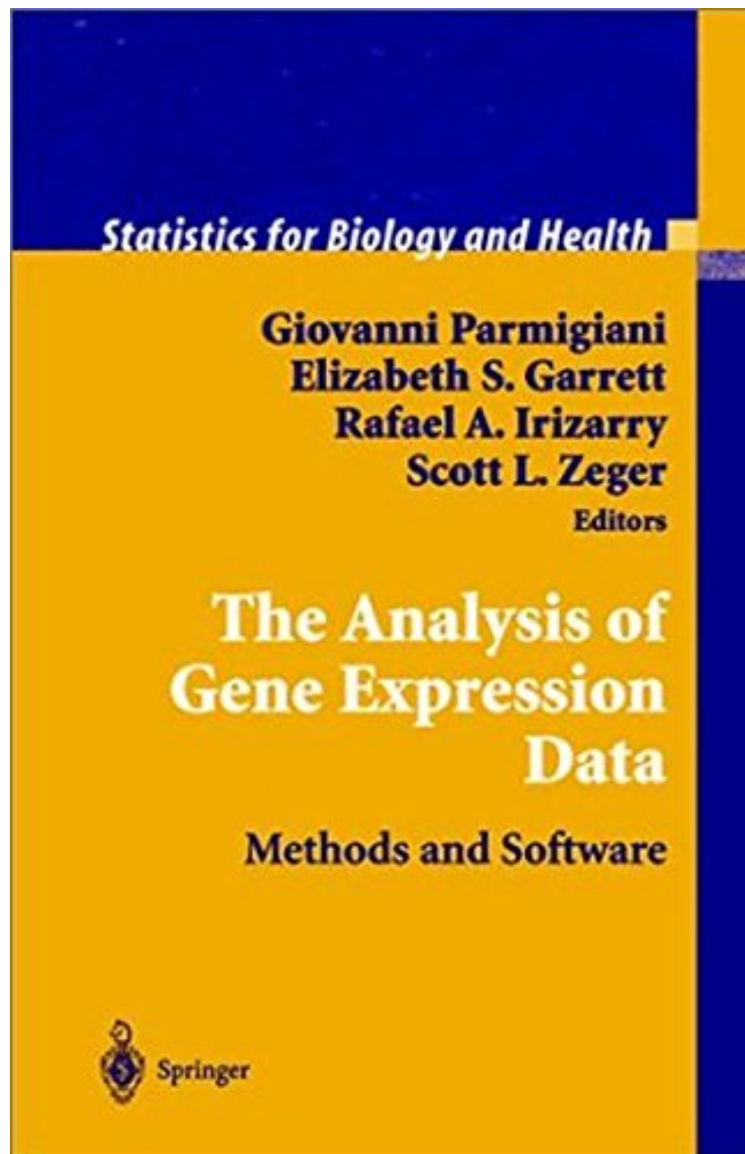


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The Analysis of Gene Expression Data: Methods and Software (Statistics for Biology and Health)

From Giovanni Parmigiani

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#3322892 in Books Giovanni Parmigiani 2003-04-08Original language:EnglishPDF # 1 9.66 x 1.15 x 6.32l, 1.96 #File Name: 0387955771456 pagesThe Analysis of Gene Expression Data Methods and Software | File size: 39.Mb

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8 of 12 people found the following review helpful. Maybe good, just not for meBy wiredweirdI thumbed through a copy of this book, but I admit I haven't read it. It just doesn't meet my needs.It's about a number of software packages available for analyzing microarray and related kinds of data. Different sections of the book seemed to range from brief surveys to fairly detailed how-to chapters, by different authors, describing different packages.I'm interested in microarray data analysis, but I want the more theoretical material - the basic computations and the principles behind them. Details of statistical and analytic techniques were too scattered, if present at all, to hold my interest.If you want the biological or medical answers from the programs without worrying too much about how they're derived, maybe this book will help you. Or maybe not, I'm not the one to judge - three stars, just because I had to give some number.5 of 7 people found the following review helpful. Not the best but still goodBy Falling MapleSome of the software commands in this book are already outdated, esp. in bioconductor. If you need to analyze a microarray data and you do not know much about the algorithms, this book gives an overview what is available. To get more insights about the theory, can check out EXPLORATORY AND ANALYSIS OF DNA MICROARRAY AND PROTEIN ARRAY or the research papers published by the authors. There is no one best method for analyzing microarray data, so don't expect a miracle from this book or any others.

This book presents practical approaches for the analysis of data from gene expression micro-arrays. It describes the conceptual and methodological underpinning for a statistical tool and its implementation in software. The book includes coverage of various packages that are part of the Bioconductor project and several related R tools. The materials presented cover a range of software tools designed for varied audiences.

From the reviews: "This useful book about methods and software for microarray data analysis is written by the developers. The goal of the book is to provide guidance to practitioners in the techniques of analysis and programs. The book combines the advantages of both a tutorial in methods and catalogue for software. Procedures are described and their implementations illustrated. All of the software described is freely available to academic users...The table of contents indicates the encyclopedic coverage, spanning a very broad spectrum of methods. The collection is introduced with an informative overview. While the authors acknowledge the formative stage of current work, they have provided a useful guide to the here and now." ISI Short Book s, Vol. 23/3, August 2003 "The opening chapter contributed by the editors is an excellent overview of the field and the threads that make it up...There is a definite hands-on character to all the presentations. Generally, each contributor selected a different but interesting set of data to demonstrate the approach." Journal of Statistical Software, April 2005 "The editors state that the goal of this book is to provide guidance to practitioners in deciding which statistical approaches and packages may be indicated for their projects . All chapters contain clear directions for installing and using the presented packages. For the practitioner of microarray data analysis, this book contains a wealth of readily available tools. For the statistician who wants to get acquainted with this rapidly evolving area, the book offers a glimpse of current problems and methods ." (Ricardo A. Maronna, Statistical Papers, Vol. 45 (2), 2004) "This volume provides a summary of many of the issues and software that are available. This is a welcome volume. The first chapter provides a wonderful introduction to the field. The later chapters are more specialised. These chapters are good references to the individual programs and methods and can be used to find links to the major software for microarray analysis." (Peter A. Lachenbruch, ISCB Newsletter, Issue 38, December, 2004) "This useful book about methods and software for microarray data analysis is written by the developers. The goal of the book is to provide guidance to practitioners in the techniques of analysis and programs. The book combines the advantages of both a tutorial in methods and catalogue for software. Procedures are described and their implementations illustrated. While the authors acknowledge the formative stage of current work, they have provided a useful guide to the here and now." (D. F. Andrews, Short Book s, Vol. 23 (2), 2003) "This book is a collection of papers on statistical techniques for gene expression data. The book is well written and I enjoyed reading the book. The chapters that discuss the same statistical topics often have different approaches or focuses on the type of arrays. This makes it worthwhile to read the sections on a particular topic in all chapters. I recommend this book to anyone who is interested in or performing the analysis of microarray data." (dr E. R. van den Heuvel, Kwantitatieve Methoden, April, 2004) "Gene expression microarray technology was introduced in 1995, but it is only in 1998 that the scientific community started using this tool . Writing a book on such a novel subject matter is not a simple task. The Analysis of Gene Expression Data: Methods and Software appears as a successful attempt. this book succeeds in the not trivial task of providing an informative, accessible, overall picture of the contributions of statisticians to the analysis of microarray data." (Chiara Sabatti, Statistics in Medicine, Vol. 23, 2004)